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**ANALYSIS OF MILITARY OCCUPATIONAL  
SPECIALTIES AND HOSPITALIZATION  
PART 1: 25 LARGEST ARMY ENLISTED OCCUPATIONS**

**U S ARMY RESEARCH INSTITUTE  
OF  
ENVIRONMENTAL MEDICINE  
Natick, Massachusetts**

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**UNITED STATES ARMY  
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**ANALYSIS OF MILITARY OCCUPATIONAL SPECIALTIES  
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**PART 1: 25 LARGEST ARMY ENLISTED OCCUPATIONS**

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## BACKGROUND

The U.S. Army Medical Research and Materiel Command (USAMRMC) manages and executes a worldwide research and development (R&D) mission aimed at military medical problems of importance to national defense. The medical R&D programs within the command provide data and material necessary to protect, maintain, or restore the health of the individual servicemember. At the U.S. Army Research Institute of Environmental Medicine (USARIEM) in Natick, Massachusetts, a subordinate command of USAMRMC, the Military Performance Division conducts epidemiological studies of injuries among Army personnel.

While it has been recognized that injury risks will vary by the type of work done, little is known as to how these risks actually vary by occupational specialty. With increasing involvement of women in nearly all Military Occupational Specialty groups, it is important to understand if these women have unique risks when doing the same jobs as men.

Army leadership has long recognized the need for medical and epidemiological research efforts to expand the operational roles of women in performance of the military mission. In 1994, in support of the need to examine the health issues of women in the military, Congress appropriated \$40 million dollars to initiate the Defense Women's Health Research Program (DWHRP). In August 1994, the DWHRP Tri-service Review Panel approved funding for USARIEM's protocol OMD95001-AP-H001 entitled "The Impact of Injuries on the Health and Readiness of Women in the Army from 1980-1994." The protocol was designed to investigate injuries among women in the Army over a 15-year period (1980 to 1994) by combining existing personnel and medical outcomes data from various Army and Department of Defense (DoD) sources into a single relational database.

The Total Army Injury and Health Outcomes Database (TAIHOD) was created as the initial action of the protocol (Amoroso et al., 1997). Maintained at USARIEM, this relational database provides the ability to link personnel records on the total active duty Army population with one or more of the following outcome measures: hospitalizations, lost-time injuries, physical disabilities, Health Risk Appraisal (HRA) survey data and

fatalities. Data are not restricted to a specific gender, allowing statistical comparisons and inferences with respect to different populations.

This report compares hospitalization outcomes and demographics for enlisted personnel from 1990-1994 for the 25 largest Military Occupational Specialties (MOS). The top causes of hospitalizations are described for men and women, specific hospitalization categories are compared by MOS, and reported causes of injuries are identified. Differences in hospitalization causes and injury causes between genders and MOSs are identified from the data.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

|         |  |
|---------|--|
| DMDC    | Defense Manpower Data Center                           |
| DMOS    | Duty Military Occupational Specialty                   |
| DoD     | Department of Defense                                  |
| DWHRP   | Defense Women's Health Research Program                |
| ICD9    | International Classification of Disease, 9th Edition   |
| MOS     | Military Occupational Specialty                        |
| NATO    | North Atlantic Treaty Organization                     |
| PMOS    | Primary Military Occupational Specialty                |
| STANAG  | NATO Standardization Agreement                         |
| TAIHOD  | Total Army Injury and Health Outcomes Database         |
| USARIEM | U.S. Army Research Institute of Environmental Medicine |

## EXECUTIVE SUMMARY

The impact of injuries on the mission, readiness, and budget of the Armed Forces is startling. To uncover the complete spectrum of injury morbidity and mortality among servicemembers, the U.S. Army Research Institute of Environmental Medicine developed a research database, the *Total Army Injury and Health Outcomes Database* (TAIHOD). This report is one of a series to be created using data from this database. The purpose of this report is to provide a description of the hospitalization rates and causes in the 25 largest Military Occupational Specialties (MOS) for women and men in the Army, focusing on acute injury, certain musculoskeletal conditions, and pregnancy. In addition, this report describes the demographic differences between each MOS, identifies MOSs at higher risk of illness or injury, and identifies specific causes of injuries.

The TAIHOD is a versatile system that joins six separate personnel and health outcomes datasets from several Defense Department agencies (Amoroso et al., 1997). All data components are linked by social security number at the level of the individual soldier. The social security numbers are encrypted, and names are dropped to ensure confidentiality of the data. The TAIHOD links three general categories of data: demographics (e.g., rank, gender, racial-ethnic group, military occupational specialty); outcomes (hospitalizations, lost-time injuries, permanent disabilities, and fatalities); and self-reported health habits. Only the demographics and hospitalization databases were used for this report.

Demographics data from the years 1990-1994 were used to identify the 25 most populated MOSs of enlisted personnel. Encrypted social security numbers were used to link the demographics data to the hospitalization database in order to identify if a person was hospitalized while in a specific MOS. The resulting hospitalization data were analyzed by International Classification of Disease, 9th Edition (ICD9) codes, and cause of injury NATO Standardization Agreement (STANAG) codes. Hospitalization rates for acute injuries and specific musculoskeletal conditions were compared to hospitalization rates for other conditions. In order to identify differences between women and men, gender-specific hospitalization rates for the top 25 occupational groups were calculated. The STANAG trauma and injury codes identify both the type of injury and the

circumstances under which an injury occurred. Causes of injuries by MOS were compared using specific injury codes.

The reasons for hospitalization vary widely between enlisted men and women. Overall, the majority of women's hospitalizations are pregnancy-related (40%). The largest proportion of men's hospitalizations, 4%, is for internal derangement of the knee. Women have higher rates of hospitalization for musculoskeletal conditions, while men have higher rates of hospitalization for injuries and poisonings. The men in MOS 11B (Infantrymen) have the highest hospitalization rates for both acute injuries and musculoskeletal conditions. For women, the highest rate of musculoskeletal hospitalizations was among Light-wheeled Vehicle Mechanics, MOS 63B, and the highest rate of acute injury/poisoning hospitalizations was among Medical Equipment Repairer, MOS 91A. Thirty percent, and possibly more, of reported acute injuries occurred while on duty; duty status was unknown for over 40% of acute injuries. Falls and other or unspecified agents caused the largest percentage of injuries for men and women, while accidents in land transport caused approximately 16% of all injuries.

This report is the first in a series devoted to the identification of Army sub-populations at greatest risk of injury, specifically high-risk military occupational specialties. The specific types and circumstances of injury are identified, and the relative morbidity from injuries versus illness or disease is compared. Of particular concern are the high rates of injury and musculoskeletal hospitalizations in Infantrymen (MOS 11B) for men, and in Medical Equipment Repairer (MOS 91A) and Light-wheeled Vehicle Mechanics (MOS 63B) for women. Future reports will provide a more in-depth analysis of the MOSs at highest risk for injury, will control for variables such as age, race, and physical fitness level, and will identify changing rates of injury and illness over time. In the future, potential education and intervention programs targeted to the MOSs and/or gender at highest injury risk could be developed to reduce the number of injuries.

## INTRODUCTION

The cumulative impact of all injuries among Army personnel is a critical issue directly affecting the mission, readiness, and budget of the Armed Forces as a whole (Amoroso et al., 1997). Injuries are the most common source of premature mortality or lost person-years of productive life, lost time from work, and the most frequent cause of death in the U.S. among persons under the age of 45. In addition, the long-range consequences of injuries are often hard to forecast and may be very costly. Long-term disability may be delayed for months or years from the acute manifestations of an injury. Analysis of broad categories of data, from multiple sources and over long periods of time, give researchers an improved understanding of where to optimally focus injury and illness prevention resources.

The Department of the Army Military Occupational Specialty/Physical Standards Working Group, organized by the Office of the Assistant Secretary of the Army (Manpower and Reserve Affairs), requested injury data on the most populated MOSs from 1990-1994. Their intent was to identify differences in injury risk among various military occupations. These data would then be used to target in-depth analyses of MOS-specific job tasks or activities. This report was developed from that request.

Analyses of occupation-specific injury rates, such as those conducted by the Navy, suggest that injury rates can vary greatly by military occupation (LTC Karl Friedel, personal communication). Recent research also suggests that injury rates vary by gender and physical fitness levels (Bell et al., 1994). Given the changing demographics of the Army and the lack of a physical performance-based standard for most MOSs, a careful assessment of soldier physical performance and injury rates is needed. If certain jobs have higher rates of particular injuries, those occupational groups can be targeted for more specific and comprehensive ergonomic evaluation.

The purpose of this report is to provide a description of the hospitalization rates and causes of hospitalization in the 25 largest occupational specialties for women and men in the Army, focusing on acute injury, certain musculoskeletal conditions, and pregnancy. In addition, this report describes the demographic differences between each MOS, identifies MOSs at higher risk of illness or injury, and identifies specific causes of

such injuries. The relative morbidity from injuries versus illness or disease and the causes of injury are compared by gender within each MOS. High-risk groups could later be targeted for education and intervention programs to reduce the number and/or severity of injuries. Plans for research studies include the following: disabilities resulting from injuries in certain MOSs, costs of injuries in terms of immediate lost-duty time and subsequent disability payments, and comparisons of Army injury rates in certain jobs with national average injury rates for parallel job descriptions.

## METHODS

Demographic data from Defense Manpower Data Center (DMDC) yearly personnel files for 1990-1994 were used to identify the 25 most populated MOSs. The analysis was restricted to enlisted personnel (E1-E9) only, because they perform different duties, are quite different demographically (e.g., education level, rank structure) from officers, and are the targeted population of the Department of the Army Military Occupational Specialty/Physical Standards Working Group. The duties of these enlisted personnel are well described in the Military Occupational Classification and Structure (1995) manual. The most populated MOSs were identified by calculating the number of years (or fraction of a year) that each soldier spent in each MOS between 1990 and 1994. The unit of this calculation is the person-year. Person-years are a measure of the length of time a person is observed in a population at risk. For example, a person in an MOS for 10 months would have a person-time contribution of 0.83 years, and a person in an MOS for 1 year would have a person-time contribution of 1 year. In this population, the possible person-years ranged from 1 day (.003 year) to 5 years. The MOSs were then rank-ordered by total number of person-years for the 5-year time period 1990-1994. The top 25 MOSs together accounted for over 50% of the total person-time, while the remaining MOSs each accounted for less than 1% of the remaining person-time. In order to simplify the analysis and focus the attention on the largest job groups, only the top 25 most populated MOSs were evaluated.

The Military Occupational coding system (Military Occupational Classification and Structure, 1995) catalogs all jobs within the Army. The MOS provides a five-digit code that was truncated to the first three digits to allow identification of the specific occupational category. The last two digits generally specify different skill levels within the MOS and were not analyzed for this report. The Duty MOS (DMOS) was initially used to identify personnel; however, when the DMOS was missing, the Primary MOS (PMOS) was used instead. The DMOS was chosen as the primary identifier because it identifies the soldier's day-to-day job activities, while the PMOS identifies the job a soldier is primarily trained to perform. The PMOS and DMOS are not always the same. If a person changed MOSs during the year, the change was noted in the next available yearly personnel file. Using yearly personnel files enabled identification of MOS shifts, instead of assuming people had the same MOS throughout the study period. This allowed people to be studied for the length of time they were employed in one of the 25 MOSs

during the study period. However, if a person changed their MOS more than once in a given year, this event would not be detected using the available data.

A number of MOSs are closed to women. However, gender analysis of the data showed a small number of women present in these MOSs. This is assumed to be an error in the coding of the data; perhaps men are coded as women, or women are coded in an incorrect MOS. Because correction of this error would be quite time consuming and because the number errors is a very small percentage of the total cases (0.06% to 0.2% of an MOS), these cases were dropped from further analyses.

Racial/ethnic groups were classified according to the following categories: White, Black, Hispanic, American Indian/Alaskan Native, Asian/Pacific Islander, and Other/unknown. Rank was grouped into the following three categories: E1-E3, E4-E6 and E7-E9.

Encrypted social security numbers were used to link the demographic data to the hospitalization database for the years 1990-1994. For each year, demographic data were matched to the hospital file in order to detect hospitalizations within each specific MOS. The hospitalization data were further analyzed by gender, MOS, ICD9 code, and STANAG codes (trauma codes and injury cause codes). Hospitalization rates of certain specific ICD9 categories (injury and poisoning, musculoskeletal, pregnancy, back, knee, joint, inguinal hernia, other disorders of synovium, tendon and bursa, and all other hospitalizations) were calculated by MOS and gender. The number of hospitalizations in each category was used as the numerator, and person-years stratified by gender and MOS was used as the denominator. SAS software was used for data management and data analysis (SAS version 6.12, SAS Institute, Cary, North Carolina).

ICD9 codes are usually 3-5 digits, with the last 2 digits providing very specific diagnoses. Because we were interested in more general hospitalization categories, we used 3-digit ICD9 codes for all evaluations. The general categories of ICD9 codes studied include the following: hospitalizations for musculoskeletal conditions (ICD9 codes 710-739), hospitalizations for acute injury or poisoning (ICD9 codes 800-904.99, 910-957.99, 960-995.99), pregnancy-related hospitalizations (ICD9 codes 630-676.9), hospitalizations for acute back injury (ICD9 codes 846-847.9), hospitalizations for

chronic back problems (ICD9 codes 720-724.99), hospitalizations for acute derangement of the knee (ICD9 codes 836-836.99), hospitalizations for old internal derangement of the knee (ICD9 codes 717-717.99), hospitalizations for inguinal hernia (ICD9 codes 550-550.99), hospitalizations for non-specific joint-related problems (ICD9 codes 719-719.99), and hospitalizations for disorders of the synovium, tendon, and bursa (ICD9 codes 727-727.99).

The hospitalization data contain ICD9 codes for up to 8 diagnoses for each hospitalization. We used the ICD9 code from the first diagnosis only, because we were only interested in the primary reason for hospitalization.



## RESULTS

Table 1 displays demographic data by MOS. (Appendix 1 contains additional information about the MOSs in this study, such as job title and physical requirements). The MOSs of Infantryman (11B), Indirect Fire Infantryman (11C), Heavy Anti-armor Weapons Infantryman (11H), Fighting Vehicle Infantryman (11M), Combat Engineer (12B), Cannon Crewmember (13B), Fire Support Specialist (13F), Cavalry Scout (19D), and Armor Crewman (19K) are closed to women. However, the analysis found that these MOSs have a small number of women, from 0.06% to 0.20% of the total population. Because these MOSs are closed to women, these soldiers are most likely incorrectly coded. However, we cannot determine if the error is due to an incorrect gender code (i.e., coded as female instead of male), an incorrect MOS code (e.g., coded as 11B when should be 54B), or the result of some other coding error. Because there is no reasonable method of verification or correction of the people coded incorrectly, they are shown in the gender column to display the amount of coding error, and dropped from all subsequent data analysis. Except for the MOSs closed to women (which by their nature are 100% male), the MOS with the largest proportion of men (95%) is 52D, Power-Generation Equipment Repairer (n=27,944 males, n=1,364 females). The MOS with the largest proportion of women (45%) is 71L, Administrative Specialist (n=43,062 males, n=35,265 females). Appendix 2 provides yearly MOS totals by gender.

Four of the top 25 MOSs (31K, 76C, 76Y, and 91A) were either recoded or discontinued during the study period, but have person-years as high as 65,000 over the 5-year study interval. Additional detail for these MOSs is provided in Appendix 1.

Racial/ethnic group, rank, and median age vary widely in the MOSs. Although whites represent 58% of this population overall and blacks 32%, the relative proportion of racial/ethnic groups per MOS varies dramatically. In MOS 95B, Military Police, 79% (n=78,058) of the population is white and 16% (n=15,548) is black. In MOS 76C, Equipment Records and Parts Specialist, 35% (n=8,640) is white and 53% (n=13,176) of the population is black. The Unit Supply Specialist (76Y) and Medical Specialist (91B) have the largest Hispanic population at 6%. 40% of the Medical Equipment Repairer (MOS=91A) population is at the E1-E3 rank (n=10,400). 83% of the Personnel

Administration Specialist (MOS=75B) population is at the E4-E6 rank (n=22,568). 24% of the Track Vehicle Repairer (MOS=63H) population is at the E7-E9 rank (5,467).

In several MOSs, for example Medical Equipment Repairer (91A), the large proportion of lower ranking (E1-E3) personnel corresponds to a younger median age. On the other hand, Personnel Administration Specialist (75B) and Track Vehicle Repairer (63H) have higher median ages and ranks. The median ages of men and women also vary by MOS. The highest median age for females, 28 years, is in 54B, Chemical Operations Specialist. The lowest median age for females, 22 years, is in 76C, Equipment Records and Parts Specialist, and in 91A, Medical Equipment Repairer. The highest median age for males, 29 years, is in 63H, Track Vehicle Repairer, and 71L, Administrative Specialist. The lowest median age for males, 22 years, is in 91A, Medical Equipment Repairer. Appendix 3 displays the number of personnel by 5-year age groups and the relative proportions of the age groups in each MOS.

**TABLE 1**  
**ENLISTED ARMY PERSONNEL BY MILITARY OCCUPATIONAL SPECIALTY,**  
**GENDER, RACE/ETHNICITY, PAY GRADE AND AGE**  
**(PERSON-YEARS)**

| DUTY MOS                                     | GENDER |         | RACE/ETHNIC GROUP |        |          |                            |                                | RANK  |        |         | MEDIAN AGE |        |      |
|--|--------|---------|-------------------|--------|----------|----------------------------|--------------------------------|-------|--------|---------|------------|--------|------|
|  | FEMALE | MALE    | WHITE             | BLACK  | HISPANIC | ASIAN/<br>PACIFIC ISLANDER | AMERICAN<br>INDIAN/<br>ALASKAN | OTHER | E1-E3  | E4-E6   | E7-E9      | FEMALE | MALE |
| COMBAT (MALE ONLY)                           |        |         |                   |        |          |                            |                                |       |        |         |            |        |      |
| Infantryman (11B)                            | 352 *  | 194,384 | 139,752           | 34,088 | 10,749   | 3,844                      | 1,320                          | 4,627 | 53,559 | 118,475 | 22,336     | N/A    | 24   |
| Indirect Fire (11C)                          | 22 *   | 35,822  | 25,458            | 6,711  | 1,899    | 623                        | 231                            | 901   | 9,692  | 22,700  | 3,429      | N/A    | 23   |
| Heavy Anti-armor Weapons (11H)               | 33 *   | 27,850  | 19,667            | 5,391  | 1,413    | 509                        | 185                            | 684   | 7,339  | 17,738  | 2,772      | N/A    | 24   |
| Fighting Vehicle (11M)                       | 89 *   | 71,738  | 46,640            | 16,663 | 3,971    | 1,254                      | 537                            | 2,667 | 21,130 | 44,527  | 6,077      | N/A    | 23   |
| Combat Engineer (12B)                        | 76 *   | 55,718  | 37,218            | 13,001 | 2,601    | 1,086                      | 347                            | 1,462 | 15,877 | 36,068  | 3,771      | N/A    | 23   |
| Cannon Crewmember (13B)                      | 92 *   | 96,059  | 41,491            | 43,111 | 5,737    | 1,843                      | 515                            | 3,359 | 25,637 | 64,955  | 5,464      | N/A    | 24   |
| Fire Support Specialist (13F)                | 29 *   | 27,249  | 18,878            | 5,923  | 1,242    | 352                        | 176                            | 675   | 7,451  | 17,145  | 2,652      | N/A    | 24   |
| Cavalry Scout (19D)                          | 88 *   | 43,602  | 30,659            | 8,618  | 2,073    | 668                        | 370                            | 1,213 | 12,120 | 28,386  | 3,096      | N/A    | 24   |
| Armor Crewman (19K)                          | 75 *   | 73,069  | 47,738            | 17,627 | 3,938    | 1,230                      | 404                            | 2,131 | 18,082 | 48,142  | 6,846      | N/A    | 24   |
| OPEN MOS (MALE & FEMALE)                     |        |         |                   |        |          |                            |                                |       |        |         |            |        |      |
| Radio Operator-Maintainer (31C)              | 2,902  | 23,459  | 17,166            | 7,388  | 801      | 295                        | 158                            | 550   | 5,545  | 20,604  | 211        | 24     | 25   |
| Combat Signaler (31K)**                      | 1,233  | 21,568  | 11,533            | 9,298  | 1,001    | 257                        | 145                            | 564   | 5,927  | 16,865  | 9          | 24     | 23   |
| Power-Generation Equipment Repairer (52D)    | 1,364  | 27,944  | 18,070            | 8,026  | 1,294    | 605                        | 206                            | 1,102 | 7,203  | 22,044  | 60         | 24     | 25   |
| Chemical Operations Specialist (54B)         | 3,415  | 34,995  | 19,439            | 14,680 | 1,927    | 719                        | 153                            | 1,487 | 6,542  | 25,636  | 6,231      | 28     | 28   |
| Light-wheeled Vehicle Mechanic (63B)         | 6,035  | 74,572  | 47,299            | 25,461 | 3,190    | 1,699                      | 494                            | 2,448 | 16,671 | 53,576  | 10,356     | 24     | 25   |
| Track Vehicle Repairer (63H)                 | 1,266  | 21,996  | 12,661            | 7,987  | 1,075    | 496                        | 123                            | 919   | 3,303  | 14,492  | 5,467      | 26     | 29   |
| Administrative Specialist (71L)              | 35,265 | 43,062  | 29,533            | 40,545 | 3,791    | 1,970                      | 358                            | 2,123 | 12,224 | 54,282  | 11,819     | 26     | 29   |
| Personnel Administration Specialist (75B)    | 6,776  | 20,380  | 9,930             | 14,094 | 1,412    | 637                        | 139                            | 942   | 4,243  | 22,568  | 345        | 27     | 26   |
| Equipment Records & Parts Specialist (76C)** | 5,740  | 18,955  | 8,640             | 13,176 | 1,453    | 588                        | 95                             | 741   | 5,916  | 18,758  | 21         | 22     | 25   |
| Unit Supply Specialist (76Y)**               | 13,518 | 49,197  | 22,316            | 32,688 | 3,881    | 1,656                      | 240                            | 1,924 | 8,296  | 47,255  | 7,162      | 26     | 28   |
| Petroleum Supply Specialist (77F)            | 7,309  | 30,629  | 14,434            | 19,403 | 1,923    | 752                        | 143                            | 1,284 | 10,423 | 25,575  | 1,941      | 23     | 25   |
| Motor Transport Operator (88M)               | 10,022 | 60,836  | 36,419            | 29,314 | 2,244    | 787                        | 375                            | 1,718 | 15,616 | 51,755  | 3,487      | 24     | 26   |
| Medical Equipment Repairer (91A)**           | 5,631  | 20,549  | 15,078            | 8,324  | 1,269    | 536                        | 183                            | 789   | 10,400 | 15,747  | 32         | 22     | 22   |
| Medical Specialist (91B)                     | 13,472 | 59,609  | 39,469            | 24,177 | 4,488    | 1,754                      | 421                            | 2,767 | 18,034 | 46,943  | 8,102      | 24     | 25   |
| Food Service Specialist (94B)                | 15,284 | 57,189  | 29,163            | 36,986 | 2,884    | 1,290                      | 360                            | 1,789 | 18,163 | 44,232  | 10,077     | 24     | 26   |
| Military Police (95B)                        | 10,293 | 88,138  | 78,058            | 15,548 | 2,215    | 572                        | 493                            | 1,539 | 18,158 | 71,824  | 8,447      | 23     | 25   |

\* Females in these male only MOS groups suggest an error of 0.06% to 0.20%.

\*\* Discontinued MOS

Tables 2 and 3 display the top 40 causes of hospitalizations for enlisted women and men, respectively. Enlisted men and women are hospitalized for very different reasons. For women, 8 of the top 10 diagnoses (24% of total hospitalizations for females) and 20 of the top 40 diagnoses (40% of total hospitalizations for females) are pregnancy related. The largest individual diagnosis at the three-digit ICD9 level is for early or threatened labor (4.7%) for women, and internal derangement of the knee (4%) for men. Comparing the top hospitalization causes for men and women, only adjustment reaction and contraceptive management are in the top 10 hospitalizations for both. The number one cause of hospitalization in men, internal derangement of knee, is the 28th cause in women, and the number two cause of hospitalization in men, alcohol dependence syndrome, is the 35th cause in women. The hospitalization data also include one-day hospitalizations, leading to a high number of diagnoses of disorders of tooth development and eruption.

**TABLE 2**  
**TOP 40 CAUSES OF HOSPITALIZATIONS**  
**(by 3-DIGIT ICD9) FOR U.S. ARMY ENLSITED FEMALES,**  
**1990-1994**

|     | DIAGNOSIS  | # OF HOSPITALIZATIONS | % OF TOTAL HOSPITALIZATIONS | RATE OF HOSPITALIZATION |
|-----|--|-----------------------|-----------------------------|-------------------------|
| 1.  | Early or threatened labor                                  | 2,280                 | 4.7                         | 163.4                   |
| 2.  | Delivery in a completely normal case                       | 1,795                 | 3.7                         | 128.7                   |
| 3.  | Trauma to perineum and vulva during delivery               | 1,743                 | 3.6                         | 124.9                   |
| 4.  | Other fetal and placental problems                         | 1,528                 | 3.2                         | 109.5                   |
| 5.  | Contraceptive management                                   | 1,276                 | 2.6                         | 91.5                    |
| 6.  | Adjustment reaction  | 1,157                 | 2.4                         | 82.9                    |
| 7.  | Abnormality of forces of labor                             | 1,142                 | 2.4                         | 81.9                    |
| 8.  | Spontaneous abortion                                       | 1,108                 | 2.3                         | 79.4                    |
| 9.  | Other current conditions in the mother classifiable        | 1,042                 | 2.2                         | 74.7                    |
| 10. | Umbilical cord complications                               | 1,029                 | 2.1                         | 73.8                    |
| 11. | Inflammatory disease of ovary, fallopian tube, pelvis      | 960                   | 2.0                         | 68.8                    |
| 12. | Pain, symptoms-female genital organs                       | 941                   | 1.9                         | 67.4                    |
| 13. | Viral and chlamydial infection                             | 935                   | 1.9                         | 67.0                    |
| 14. | Disorders of tooth development and eruption                | 822                   | 1.7                         | 58.9                    |
| 15. | Other noninfectious gastroenteritis and colitis            | 706                   | 1.5                         | 50.6                    |
| 16. | Hypertension complicating pregnancy, childbirth, and the   | 690                   | 1.4                         | 49.5                    |
| 17. | Excessive vomiting in pregnancy                            | 681                   | 1.4                         | 48.8                    |
| 18. | Abnormality of organs and soft tissues of pelvis           | 630                   | 1.3                         | 45.2                    |
| 19. | Other complications of pregnancy, not elsewhere classified | 627                   | 1.3                         | 44.9                    |
| 20. | Other problems - amniotic cavity and membranes             | 612                   | 1.3                         | 43.9                    |
| 21. | Other symptoms involving abdomen and pelvis                | 607                   | 1.3                         | 43.5                    |
| 22. | Other disorders of synovium, tendon, and bursa             | 517                   | 1.1                         | 37.1                    |
| 23. | Acquired deformities of toe                                | 460                   | 1.0                         | 33.0                    |
| 24. | Malposition and malpresentation of fetus                   | 459                   | 0.9                         | 32.9                    |
| 25. | Antenatal screening  | 444                   | 0.9                         | 31.8                    |
| 26. | Ectopic pregnancy  | 442                   | 0.9                         | 31.7                    |
| 27. | Infections of kidney                                       | 433                   | 0.9                         | 31.0                    |
| 28. | Internal derangement of knee                               | 433                   | 0.9                         | 31.0                    |
| 29. | Other obstetrical trauma                                   | 423                   | 0.9                         | 30.3                    |
| 30. | Noninflammatory disorders -ovary, fallopian tube           | 406                   | 0.8                         | 29.1                    |
| 31. | Missed abortion  | 389                   | 0.8                         | 27.9                    |
| 32. | Dentofacial anomalies, including malocclusion              | 380                   | 0.8                         | 27.2                    |
| 33. | Acute upper respiratory infections,multiple/unspecified    | 355                   | 0.7                         | 25.4                    |
| 34. | Observation/evaluation suspected conditions                | 346                   | 0.7                         | 24.8                    |
| 35. | Alcohol dependence syndrome                                | 337                   | 0.7                         | 24.2                    |
| 36. | Intestinal infections due to other organisms               | 334                   | 0.7                         | 23.9                    |
| 37. | Other complications of labor and delivery, not elsewhere   | 331                   | 0.7                         | 23.7                    |
| 38. | Acute pharyngitis  | 322                   | 0.7                         | 23.1                    |
| 39. | Infectious and parasitic conditions in the mother          | 320                   | 0.7                         | 22.9                    |
| 40. | Prolonged pregnancy  | 308                   | 0.6                         | 22.1                    |

Hospitalization Rate is per 10,000 person-years

**TABLE 3**  
**TOP 40 CAUSES OF HOSPITALIZATIONS**  
**(by 3-DIGIT ICD9) FOR U.S. ARMY ENLISTED MALES,**  
**1990-1994**

|     | DIAGNOSIS   | # OF HOSPITALIZATIONS | %OF TOTAL HOSPITALIZATIONS | RATE OF HOSPITALIZATION |
|-----|---|-----------------------|----------------------------|-------------------------|
| 1.  | Internal derangement of knee                            | 6,361                 | 4.0                        | 49.8                    |
| 2.  | Alcohol dependence syndrome                             | 5,149                 | 3.2                        | 40.3                    |
| 3.  | Adjustment reaction                                     | 5,077                 | 3.2                        | 39.7                    |
| 4.  | Inguinal hernia   | 4,291                 | 2.7                        | 33.6                    |
| 5.  | Disorders of tooth development and eruption             | 4,252                 | 2.7                        | 33.3                    |
| 6.  | Other derangement of joint                              | 3,209                 | 2.0                        | 25.1                    |
| 7.  | Contraceptive management                                | 3,030                 | 1.9                        | 23.7                    |
| 8.  | Viral and chlamydial infection                          | 2,708                 | 1.7                        | 21.2                    |
| 9.  | Other noninfectious gastroenteritis and colitis         | 2,412                 | 1.5                        | 18.9                    |
| 10. | Other disorders of synovium, tendon, and bursa          | 2,307                 | 1.4                        | 18.0                    |
| 11. | Pneumonia, organism unspecified                         | 2,197                 | 1.4                        | 17.2                    |
| 12. | Follow-up examination                                   | 2,190                 | 1.4                        | 17.1                    |
| 13. | Symptoms involving respiratory system, other chest      | 2,077                 | 1.3                        | 16.2                    |
| 14. | Intervertebral disc disorders                           | 2,008                 | 1.3                        | 15.7                    |
| 15. | Streptococcal sore throat and scarlet fever             | 1,960                 | 1.2                        | 15.3                    |
| 16. | Acute pharyngitis                                       | 1,888                 | 1.2                        | 14.8                    |
| 17. | Other disorders of bone and cartilage                   | 1,879                 | 1.2                        | 14.7                    |
| 18. | Other cellulitis and abscess                            | 1,785                 | 1.1                        | 14.0                    |
| 19. | Other and unspecified disorders of back                 | 1,721                 | 1.1                        | 13.5                    |
| 20. | Other and unspecified disorders of joint                | 1,712                 | 1.1                        | 13.4                    |
| 21. | Other orthopedic aftercare                              | 1,666                 | 1.0                        | 13.0                    |
| 22. | Acute upper respiratory infections,multiple/unspecified | 1,598                 | 1.0                        | 12.5                    |
| 23. | Chickenpox  | 1,526                 | 1.0                        | 11.9                    |
| 24. | General symptoms  | 1,507                 | 0.9                        | 11.8                    |
| 25. | Peripheral enthesopathies and allied syndromes          | 1,505                 | 0.9                        | 11.8                    |
| 26. | Intracranial injury of other and unspecified nature     | 1,464                 | 0.9                        | 11.5                    |
| 27. | Acute appendicitis                                      | 1,431                 | 0.9                        | 11.2                    |
| 28. | Nondependent abuse of drugs                             | 1,401                 | 0.9                        | 11.0                    |
| 29. | Dentofacial anomalies, including malocclusion           | 1,399                 | 0.9                        | 10.9                    |
| 30. | Deviated nasal septum                                   | 1,343                 | 0.8                        | 10.5                    |
| 31. | Acquired deformities of toe                             | 1,313                 | 0.8                        | 10.3                    |
| 32. | Fracture of ankle                                       | 1,312                 | 0.8                        | 10.3                    |
| 33. | Fracture of face bones                                  | 1,234                 | 0.8                        | 9.7                     |
| 34. | Other symptoms involving abdomen and pelvis             | 1,216                 | 0.8                        | 9.5                     |
| 35. | Sprains and strains of knee and leg                     | 1,135                 | 0.7                        | 8.9                     |
| 36. | Intestinal infections due to other organisms            | 1,104                 | 0.7                        | 8.6                     |
| 37. | Dislocation of knee                                     | 1,083                 | 0.7                        | 8.5                     |
| 38. | Observation/evaluation suspected conditions             | 1,081                 | 0.7                        | 8.5                     |
| 39. | Calculus of kidney and ureter                           | 1,074                 | 0.7                        | 8.4                     |
| 40. | Asthma  | 1,047                 | 0.7                        | 8.2                     |

Hospitalization Rate is per 10,000 person-years

Table 4 displays hospitalization rates per 10,000 person-years by MOS and gender. The highest rate of injury/poisoning hospitalizations for men was in MOS 11B, Infantrymen (260 per 10,000), and the highest rate for women was in MOS 91A, Medical Equipment Repairer (206 per 10,000). The highest rate of musculoskeletal hospitalizations for men was also in Infantrymen (248 per 10,000), and the highest rate for women was MOS 63B, Light-wheeled vehicle mechanic (310 per 10,000). The male-only MOSs (Infantryman [11B], Indirect Fire Infantryman [11C], Heavy Anti-Armor Weapons Infantryman [11H], Fighting Vehicle Infantryman [11M], Combat Engineer [12B], Cannon Crewmember [13B], Fire Support Specialist [13F], Cavalry Scout [19D], Armor Crewman [19K]) and Medical Equipment Repairer (91A) had very high acute injury/poisoning hospitalization rates (over 200 per 10,000); however, musculoskeletal hospitalizations in these MOSs varied widely. Medical Equipment Repairer (91A) was also hazardous for women. Women in this MOS had the highest rates of acute injury/poisoning hospitalizations (206 per 10,000), and the fourth highest rates of musculoskeletal hospitalizations (300 per 10,000). Musculoskeletal hospitalization rates in women were also above 300 per 10,000 for the Combat Signaler (31K), Chemical Operations Specialist (54B), and Light-wheeled Vehicle Mechanic (63B).

Table 4 also shows the mean hospitalization rate in each hospitalization category. Rates that are more than 1.5 standard deviations from the mean are right-justified if higher and left-justified if lower to allow quick scanning of the chart. Male Infantryman (11B) and Medical Specialists (91B) have musculoskeletal hospitalization rates greater than two standard deviations above the mean, and Combat Signalers (31K) have musculoskeletal hospitalization rates less than two standard deviations below the mean. Women Medical Equipment Repairers (91A) have injury/poisoning hospitalization rates greater than 1.5 standard deviations above the mean. No male MOS categories had an injury/poisoning hospitalization rate greater or less than two standard deviations from the mean, and no female MOS categories had a musculoskeletal hospitalization rate greater or less than two standard deviations from the mean.

In the top 25 MOSs, men have higher rates of injury/poisoning hospitalizations, with an overall rate of 196 injury/poisoning hospitalizations per 10,000 person-years, compared to 120 injury/poisoning hospitalizations per 10,000 person-years for women. Women have higher rates of musculoskeletal hospitalizations, an overall rate of 228 per

10,000 person-years, compared to 209 musculoskeletal hospitalizations per 10,000 person-years for men. Women's rates of hospitalization for other reasons (not including pregnancy-related, injury poisoning or musculoskeletal) was 1,743 per 10,000; over twice as high as the rates for men (841 per 10,000). Comparing the hospitalization rates for the top 25 MOSs to all other MOSs, the injury/poisoning hospitalization rate in all other MOSs is lower for men and women, while the musculoskeletal hospitalization rate is higher for women and the same for men.



**TABLE 4**  
**HOSPITALIZATION RATES BY**  
**MILITARY OCCUPATIONAL SPECIALTY and GENDER**

| DUTY MOS                                   | GENDER | Primary Diagnosis/ICD9 Codes                        |                            |                        |                |                               |
|--|--------|---|----------------------------|------------------------|----------------|-------------------------------|
|  |        | 800-904.99, 910-957.99, 960-995.99<br>Injury/Poison | 710-739<br>Musculoskeletal | 630-676.9<br>Pregnancy | Other hospital | Total<br>Hospitalization Rate |
| <b>COMBAT (MALE ONLY)</b>                  |        |   |                            |                        |                |                               |
| Infantryman (11B)                          | MALE   | 259.9   | 247.7                      | 0.0                    | 838.1          | 1345.7                        |
| Indirect Fire (11C)                        | MALE   | 221.1   | 194.0                      | 0.0                    | 719.9          | 1135.1                        |
| Heavy Anti-armor Weapons (11H)             | MALE   | 221.2   | 233.8                      | 0.0                    | 728.9          | 1183.9                        |
| Fighting Vehicle (11M)                     | MALE   | 223.5   | 173.4                      | 0.0                    | 725.1          | 1122.0                        |
| Combat Engineer (12B)                      | MALE   | 230.3   | 206.2                      | 0.0                    | 873.9          | 1310.3                        |
| Cannon Crewmember (13B)                    | MALE   | 213.5   | 191.2                      | 0.0                    | 818.1          | 1222.9                        |
| Fire Support Specialist (13F)              | MALE   | 211.8   | 213.6                      | 0.0                    | 766.6          | 1192.0                        |
| Cavalry Scout (19D)                        | MALE   | 226.6   | 184.4                      | 0.0                    | 738.0          | 1149.0                        |
| Armor Crewman (19K)                        | MALE   | 220.7   | 187.2                      | 0.0                    | 747.9          | 1155.9                        |
| <b>OPEN MOS (MALE &amp; FEMALE)</b>        |        |   |                            |                        |                |                               |
| Radio Operator-Maintainer (31C)            | MALE   | 178.2   | 186.7                      | 0.0                    | 822.7          | 1187.6                        |
|  | FEMALE | 137.9   | 248.1                      | 1378.6                 | 1750.8         | 3515.4                        |
|  | TOTAL  | 173.7   | 193.5                      | 0.0                    | 924.9          | 1443.8                        |
| Combat Signaler (31K)**                    | MALE   | 167.8   | 155.3                      | 0.0                    | 852.7          | 1175.8                        |
|  | FEMALE | 121.7   | 308.3                      | 1654.9                 | 1792.8         | 3877.7                        |
|  | TOTAL  | 165.3   | 163.6                      | 0.0                    | 903.5          | 1321.9                        |
| Power-Generation Equipment Repairer (52D)  | MALE   | 167.5   | 195.0                      | 0.0                    | 779.4          | 1141.9                        |
|  | FEMALE | 139.3   | 293.2                      | 1114.3                 | 1642.1         | 3188.8                        |
|  | TOTAL  | 166.2   | 199.6                      | 0.0                    | 819.6          | 1237.2                        |
| Chemical Operations Specialist (54B)       | MALE   | 175.7   | 227.5                      | 0.0                    | 881.8          | 1285.0                        |
|  | FEMALE | 146.4   | 307.5                      | 1186.0                 | 1806.8         | 3446.6                        |
|  | TOTAL  | 173.1   | 234.6                      | 0.0                    | 964.1          | 1477.2                        |
| Light-wheeled Vehicle Mechanic (63B)       | MALE   | 154.5   | 220.7                      | 0.0                    | 822.7          | 1197.9                        |
|  | FEMALE | 134.2   | 309.9                      | 1411.9                 | 1880.8         | 3736.8                        |
|  | TOTAL  | 153.0   | 227.4                      | 0.0                    | 901.9          | 1388.0                        |
| Track Vehicle Repairer (63H)               | MALE   | 136.8   | 236.0                      | 0.0                    | 736.0          | 1108.8                        |
|  | FEMALE | 63.2  | 213.2                      | 1484.6                 | 2021.5         | 3782.5                        |
|  | TOTAL  | 132.8   | 234.7                      | 0.0                    | 806.0          | 1254.4                        |
| Administrative Specialist (71L)            | MALE   | 117.3   | 204.8                      | 0.0                    | 861.5          | 1183.6                        |
|  | FEMALE | 78.8  | 195.9                      | 1244.3                 | 1502.6         | 3021.7                        |
|  | TOTAL  | 100.0   | 200.8                      | 0.0                    | 1150.2         | 2011.2                        |
| Personnel Administration Specialist (75B)  | MALE   | 125.1   | 195.3                      | 0.0                    | 745.8          | 1066.2                        |
|  | FEMALE | 85.6  | 190.4                      | 1316.4                 | 1478.7         | 3071.0                        |
|  | TOTAL  | 115.3   | 194.1                      | 0.0                    | 928.7          | 1566.5                        |
| Equipment Records & Parts Specialist (76C) | MALE   | 146.7   | 181.5                      | 0.0                    | 872.0          | 1200.2                        |
|  | FEMALE | 120.2   | 205.6                      | 1731.8                 | 1653.4         | 3710.9                        |
|  | TOTAL  | 140.5   | 187.1                      | 0.0                    | 1053.6         | 1783.7                        |
| Unit Supply Specialist (76Y)**             | MALE   | 143.5   | 193.9                      | 0.0                    | 844.6          | 1182.0                        |
|  | FEMALE | 91.7  | 207.1                      | 1422.5                 | 1689.6         | 3411.0                        |
|  | TOTAL  | 132.3   | 196.8                      | 0.0                    | 1026.7         | 1662.4                        |
| Petroleum Supply Specialist (77F)          | MALE   | 173.4   | 198.8                      | 0.0                    | 925.9          | 1298.1                        |
|  | FEMALE | 179.2   | 221.7                      | 1487.3                 | 1874.5         | 3762.7                        |
|  | TOTAL  | 174.5   | 203.2                      | 0.0                    | 1108.7         | 1772.9                        |
| Motor Transport Operator (88M)             | MALE   | 189.5   | 217.1                      | 0.0                    | 886.0          | 1292.7                        |
|  | FEMALE | 142.7   | 240.5                      | 1474.8                 | 1813.0         | 3670.9                        |
|  | TOTAL  | 182.9   | 220.4                      | 0.0                    | 1017.1         | 1629.0                        |
| Medical Equipment Repairer (91A)**         | MALE   | 237.5   | 207.3                      | 0.0                    | 1234.6         | 1679.4                        |
|  | FEMALE | 206.0   | 300.1                      | 1530.9                 | 2465.1         | 4502.2                        |
|  | TOTAL  | 230.7   | 227.3                      | 0.0                    | 1499.3         | 2286.5                        |
| Medical Specialist (91B)                   | MALE   | 167.9   | 247.6                      | 0.0                    | 1079.0         | 1494.6                        |
|  | FEMALE | 124.0   | 280.6                      | 1356.2                 | 2082.1         | 3842.8                        |
|  | TOTAL  | 159.8   | 253.7                      | 0.0                    | 1264.0         | 1927.5                        |
| Food Service Specialist (94B)              | MALE   | 157.5   | 192.0                      | 0.0                    | 1034.6         | 1384.2                        |
|  | FEMALE | 142.0   | 192.4                      | 1556.5                 | 1810.4         | 3701.2                        |
|  | TOTAL  | 154.3   | 192.1                      | 0.0                    | 1198.2         | 1872.8                        |
| Military Police (95B)                      | MALE   | 152.8   | 203.5                      | 0.0                    | 790.5          | 1146.8                        |
|  | FEMALE | 152.5   | 240.0                      | 1165.9                 | 1626.4         | 3184.8                        |
|  | TOTAL  | 152.8   | 207.4                      | 0.0                    | 877.9          | 1359.9                        |

**TABLE 4**  
**HOSPITALIZATION RATES BY**  
**MILITARY OCCUPATIONAL SPECIALTY and GENDER**

| DUTY MOS                   | GENDER  | Primary Diagnosis/ICD9 Codes                        |                            |                        |                |                               |
|----------------------------|---------|---|----------------------------|------------------------|----------------|-------------------------------|
|                            |         | 800-904.99, 910-957.99, 960-995.99<br>Injury/Poison | 710-739<br>Musculoskeletal | 630-676.9<br>Pregnancy | Other hospital | Total<br>Hospitalization Rate |
| Rate for top 25 MOS        | MALE    | 196.0   | 209.0                      | 0.0                    | 840.8          | 1245.8                        |
|                            | FEMALE  | 119.9   | 227.8                      | 1378.3                 | 1742.8         | 3468.8                        |
|                            | TOTAL   | 188.5   | 210.9                      | 135.6                  | 929.6          | 1464.6                        |
| All Other MOS              | MALE    | 146.6   | 207.6                      | 0.0                    | 828.4          | 1182.6                        |
|                            | FEMALE  | 104.8   | 242.2                      | 1229.1                 | 1704.8         | 3280.9                        |
|                            | TOTAL   | 140.8   | 212.4                      | 0.0                    | 950.1          | 1474.0                        |
| MEAN of all MOS            | MALE    | 183.3   | 203.9                      | 0.0                    | 844.4          | 1231.7                        |
|                            | FEMALE  | 127.7   | 246.9                      | 1396.8                 | 1799.7         | 3571.1                        |
|                            | TOTAL   | 179.9   | 206.9                      | 0.0                    | 936.6          | 1472.5                        |
| STD DEV                    | MALE    | 39.0  | 22.2                       | 0.0                    | 119.3          | 131.6                         |
|                            | FEMALE  | 36.0  | 44.3                       | 173.7                  | 233.9          | 367.9                         |
|                            | TOTAL   | 41.9  | 22.5                       | 0.0                    | 189.7          | 311.8                         |
| RANGE (+ or - 1.5 std dev) | MALE+   | 241.8   | 237.2                      | 0.0                    | 1023.3         | 1429.1                        |
|                            | MALE-   | 124.8   | 170.6                      | 0.0                    | 665.6          | 1034.3                        |
|                            | FEMALE+ | 181.6   | 313.4                      | 1657.3                 | 2150.6         | 4122.9                        |
|                            | FEMALE- | 73.7  | 180.4                      | 1136.3                 | 1448.9         | 3019.2                        |
|                            | TOTAL+  | 242.8   | 240.7                      | 0.0                    | 1221.1         | 1940.3                        |
|                            | TOTAL-  | 117.0   | 173.1                      | 0.0                    | 652.0          | 1004.8                        |

**\*\* Discontinued MOS**

**Note:** Hospitalization rates are right-justified if greater than 1.5 standard deviations above the mean, and left-justified if less than 1.5 standard deviations below the mean.

Table 5 displays hospitalization rates per 10,000 person-years by MOS and gender for back, knee, inguinal hernia, joint, and disorders of the synovium, tendon and bursa. Acute back hospitalizations include sprains and strains of the back; while chronic back hospitalizations include ankylosing spondylitis, spondylosis, intervertebral disc disorders, and disorders of the cervical region. Acute knee hospitalizations include dislocations and tears of the cartilage and/or meniscus; while internal derangement of the knee includes degeneration, old rupture or tear, and chondromalacia of the patella.

Hospitalization rates for chronic back problems were much higher than acute back hospitalization rates, though rates for chronic back hospitalizations were similar for women and men. The MOS with the highest rate of acute back hospitalizations for men was 88M, Motor Transport Operator (8 per 10,000), and the highest rate of chronic back hospitalizations was 63H, Track Vehicle Repairer (48 per 10,000). The MOS with the highest rate of acute back hospitalizations for women was 91A, Medical Equipment Repairer (16 per 10,000), and the highest rate of chronic back hospitalizations was 95B, Military Police (44 per 10,000).

The overall rate for acute and internal derangement of the knee was lower for women than for men. The exception was in Power-generation Equipment Repairer (52D), where the rate for internal derangement of the knee for women (95 per 10,000) was 60% higher than the rate for men (59 per 10,000). Power-generation Equipment Repairer had the highest rate of hospitalization for internal derangement of the knee for men and women. However, the small number of women in this MOS could make this rate unreliable. The MOS with the highest rate of hospitalization for acute derangement of the knee for women (9 per 10,000) was 54B, Chemical Operations Specialist, and the highest rates for men (11 per 10,000) were MOS 76C, Equipment Records and Parts Specialist, and MOS 91A, Medical Equipment Repairer.

The overall hospitalization rates for joint disorders for men and women were similar. The MOS with the highest hospitalization rate of joint disorders of the lower extremity for women (31 per 10,000) was 31C, Radio Operator-maintainer, and for men (15 per 10,000) was MOS 91A, Medical Equipment Repairer. The MOS with the highest hospitalization rate of joint disorders of the upper extremity for women (37 per 10,000)

and the highest rate for men (5 per 10,000) was 52D, Power-generation Equipment Repairer.

Men had much higher hospitalization rates for inguinal hernia, and women had much higher hospitalization rates for disorders of the synovium, tendon, and bursa. The MOS with the highest hospitalization rate for disorders of the synovium, tendon, and bursa for women (52 per 10,000) and men (23 per 10,000) was 91B, Medical Specialist. The second highest rate of these hospitalizations for women (50 per 10,000) was Medical Equipment Repairer (91A). Hospitalizations for disorders of the synovium, tendon, and bursa were almost twice as high for women as for men. The MOS with the highest hospitalization rate of inguinal hernia for women (16 per 10,000) was 63H, Track Vehicle Repairer, and the highest rate for men (40 per 10,000) was 94B, Food Service Specialist.

**TABLE 5**  
**HOSPITALIZATION CATEGORIES BY MOS AND GENDER, 1990-1994**  
**Rates per 10,000 Person-Years**

|  |        |      | PRIMARY DIAGNOSIS  |                       |                     |                        |   |                 |                 |  |      |  | 727-727.99<br>Synovium<br>tendon & bursa |
|--|--------|------|--------------------|-----------------------|---------------------|------------------------|---|-----------------|-----------------|--|------|--|--|
|  |        |      | BACK               |                       | KNEE                |                        | JOINT (i.e., effusion, pain, stiffness) |                 |                 |  |      |  |  |
|  |        |      | 846-847.9<br>Acute | 720-724.99<br>Chronic | 836-836.99<br>Acute | 717-717.99<br>Internal | 550-550.99<br>Inguinal Hernia           | Lower Extremity | Upper Extremity |  |      |  |  |
| DUTY MOS                                     | GENDER |      |                    |                       |                     |                        |   |                 |                 |  |      |  |  |
| COMBAT (MALE ONLY)                           |        |      |                    |                       |                     |                        |   |                 |                 |  |      |  |  |
| Infantryman (11B)                            | MALE   | 5.1  | 37.6               |                       | 8.8                 | 58.1                   | 33.1                                    | 13.1            | 2.7             |  | 19.7 |  |  |
| Indirect Fire (11C)                          | MALE   | 5.0  | 26.0               |                       | 6.7                 | 50.8                   | 32.1                                    | 12.0            | 2.2             |  | 16.7 |  |  |
| Heavy Anti-armor Weapons (11H)               | MALE   | 3.6  | 26.9               |                       | 10.8                | 56.7                   | 32.0                                    | 7.9             | 1.1             |  | 21.2 |  |  |
| Fighting Vehicle (11M)                       | MALE   | 4.3  | 24.5               |                       | 8.2                 | 40.0                   | 37.9                                    | 9.1             | 1.7             |  | 15.5 |  |  |
| Combat Engineer (12B)                        | MALE   | 4.1  | 29.8               |                       | 10.6                | 49.2                   | 37.7                                    | 10.8            | 1.8             |  | 17.1 |  |  |
| Cannon Crewmember (13B)                      | MALE   | 4.8  | 26.7               |                       | 9.5                 | 48.5                   | 35.2                                    | 10.6            | 2.3             |  | 14.3 |  |  |
| Fire Support Specialist (13F)                | MALE   | 3.3  | 27.2               |                       | 9.5                 | 50.3                   | 33.4                                    | 12.1            | 2.9             |  | 22.0 |  |  |
| Cavalry Scout (19D)                          | MALE   | 4.6  | 23.9               |                       | 7.1                 | 49.5                   | 32.6                                    | 10.8            | 3.0             |  | 16.7 |  |  |
| Armor Crewman (19K)                          | MALE   | 5.1  | 27.8               |                       | 9.2                 | 47.1                   | 38.5                                    | 8.9             | 2.3             |  | 16.8 |  |  |
| OPEN MOS (MALE & FEMALE)                     |        |      |                    |                       |                     |                        |   |                 |                 |  |      |  |  |
| Radio Operator-Maintainer (31C)              | MALE   | 5.1  | 26.9               |                       | 6.0                 | 48.2                   | 22.6                                    | 9.0             | 4.7             |  | 14.1 |  |  |
|  | FEMALE | 10.3 | 37.9               |                       | 10.3                | 37.9                   | 0.0                                     | 31.0            | 6.9             |  | 31.0 |  |  |
|  |        | 5.7  | 28.1               |                       | 6.4                 | 47.0                   | 20.1                                    | 11.4            | 4.9             |  | 15.9 |  |  |
| Combat Signaler (31K)**                      | MALE   | 4.2  | 19.0               |                       | 7.9                 | 34.3                   | 32.0                                    | 9.7             | 1.9             |  | 13.0 |  |  |
|  | FEMALE | 16.2 | 40.6               |                       | 0.0                 | 32.4                   | 0.0                                     | 8.1             | 8.1             |  | 24.3 |  |  |
|  |        | 4.8  | 20.2               |                       | 7.5                 | 34.2                   | 30.3                                    | 9.6             | 2.2             |  | 13.6 |  |  |
| Power-Generation Equipment Repairer (52D)    | MALE   | 3.2  | 26.8               |                       | 8.2                 | 59.0                   | 32.6                                    | 9.7             | 5.0             |  | 17.9 |  |  |
|  | FEMALE | 0.0  | 22.0               |                       | 0.0                 | 95.3                   | 7.3                                     | 7.3             | 36.7            |  | 22.0 |  |  |
|  |        | 3.1  | 26.6               |                       | 7.8                 | 60.7                   | 31.4                                    | 9.6             | 6.5             |  | 18.1 |  |  |
| Chemical Operations Specialist (54B)         | MALE   | 3.7  | 41.7               |                       | 9.4                 | 55.7                   | 38.0                                    | 9.4             | 2.9             |  | 18.9 |  |  |
|  | FEMALE | 2.9  | 35.1               |                       | 8.8                 | 38.1                   | 14.6                                    | 8.8             | 0.0             |  | 70.3 |  |  |
|  |        | 3.6  | 41.1               |                       | 9.4                 | 54.2                   | 35.9                                    | 9.4             | 2.6             |  | 23.4 |  |  |
| Light-wheeled Vehicle Mechanic (63B)         | MALE   | 3.8  | 36.6               |                       | 7.1                 | 50.7                   | 36.9                                    | 7.9             | 4.0             |  | 20.8 |  |  |
|  | FEMALE | 3.3  | 28.2               |                       | 6.6                 | 48.1                   | 8.3                                     | 14.9            | 5.0             |  | 48.1 |  |  |
|  |        | 3.7  | 36.0               |                       | 7.1                 | 50.5                   | 34.7                                    | 8.4             | 4.1             |  | 22.8 |  |  |
| Track Vehicle Repairer (63H)                 | MALE   | 1.8  | 48.2               |                       | 7.7                 | 55.5                   | 35.9                                    | 6.8             | 1.4             |  | 22.7 |  |  |
|  | FEMALE | 0.0  | 23.7               |                       | 0.0                 | 47.4                   | 15.8                                    | 0.0             | 0.0             |  | 31.6 |  |  |
|  |        | 1.7  | 46.9               |                       | 7.3                 | 55.0                   | 34.8                                    | 6.4             | 1.3             |  | 23.2 |  |  |
| Administrative Specialist (71L)              | MALE   | 2.1  | 41.8               |                       | 7.0                 | 43.4                   | 24.2                                    | 7.7             | 2.6             |  | 20.2 |  |  |
|  | FEMALE | 4.3  | 26.7               |                       | 1.7                 | 24.1                   | 11.6                                    | 7.4             | 1.1             |  | 38.0 |  |  |
|  |        | 3.1  | 35.0               |                       | 4.6                 | 34.7                   | 18.5                                    | 7.5             | 1.9             |  | 28.2 |  |  |
| Personnel Administration Specialist (75B)    | MALE   | 4.9  | 36.3               |                       | 7.9                 | 46.6                   | 24.5                                    | 8.3             | 2.9             |  | 21.1 |  |  |
|  | FEMALE | 4.4  | 23.6               |                       | 4.4                 | 32.5                   | 5.9                                     | 8.9             | 5.9             |  | 29.5 |  |  |
|  |        | 4.8  | 33.1               |                       | 7.0                 | 43.1                   | 19.9                                    | 8.5             | 3.7             |  | 23.2 |  |  |
| Equipment Records & Parts Specialist (76C)** | MALE   | 2.1  | 23.2               |                       | 11.1                | 54.3                   | 34.8                                    | 7.4             | 3.2             |  | 15.8 |  |  |
|  | FEMALE | 7.0  | 41.8               |                       | 3.5                 | 13.9                   | 5.2                                     | 8.7             | 1.7             |  | 43.6 |  |  |
|  |        | 3.2  | 27.5               |                       | 9.3                 | 44.9                   | 27.9                                    | 7.7             | 2.8             |  | 22.3 |  |  |

**TABLE 5**  
**HOSPITALIZATION CATEGORIES BY MOS AND GENDER, 1990-1994**  
**Rates per 10,000 Person-Years**

|                                    |         | PRIMARY DIAGNOSIS |            |            |            |                 |  |                 |                 |                 |  | JOINT (i.e., effusion, pain, stiffness) |  | 727-727.99 |
|------------------------------------|---------|-------------------|------------|------------|------------|-----------------|--|-----------------|-----------------|-----------------|--|---|--|------------|
|                                    |         | BACK              |            | KNEE       |            | 550-550.99      |  | 719-719.99      |                 | Upper Extremity |  | Synovium                                |  |            |
|                                    |         | 846-847.9         | 720-724.99 | 836-836.99 | 717-717.99 | Inguinal Hernia |  | Lower Extremity | Upper Extremity |                 |  | tendon & bursa                          |  |            |
|                                    |         | Acute             | Chronic    | Acute      | Internal   |                 |  |                 |                 |                 |  |   |  |            |
| DUTY MOS                           | GENDER  |                   |            |            |            |                 |  |                 |                 |                 |  |   |  |            |
|                                    | MALE    | 4.9               | 30.1       | 10.0       | 44.9       | 27.4            |  | 9.1             | 2.6             |                 |  | 18.5                                    |  |            |
|                                    | FEMALE  | 6.7               | 39.9       | 3.0        | 24.4       | 5.9             |  | 10.4            | 3.0             |                 |  | 22.9                                    |  |            |
|                                    |         | 5.3               | 32.2       | 8.5        | 40.5       | 22.8            |  | 9.4             | 2.7             |                 |  | 19.5                                    |  |            |
| Petroleum Supply Specialist (77F)  | MALE    | 7.8               | 35.3       | 7.8        | 42.4       | 32.0            |  | 9.8             | 1.6             |                 |  | 15.3                                    |  |            |
|                                    | FEMALE  | 4.1               | 28.7       | 6.8        | 31.5       | 1.4             |  | 12.3            | 2.7             |                 |  | 28.7                                    |  |            |
|                                    |         | 7.1               | 34.0       | 7.6        | 40.3       | 26.1            |  | 10.3            | 1.8             |                 |  | 17.9                                    |  |            |
| Motor Transport Operator (88M)     | MALE    | 8.4               | 36.8       | 7.9        | 47.5       | 30.6            |  | 11.8            | 3.5             |                 |  | 15.3                                    |  |            |
|                                    | FEMALE  | 4.0               | 28.9       | 3.0        | 27.9       | 5.0             |  | 17.0            | 3.0             |                 |  | 34.9                                    |  |            |
|                                    |         | 7.8               | 35.7       | 7.2        | 44.7       | 27.0            |  | 12.6            | 3.4             |                 |  | 18.1                                    |  |            |
| Medical Equipment Repairer (91A)** | MALE    | 3.9               | 27.7       | 11.2       | 47.7       | 33.1            |  | 14.6            | 1.9             |                 |  | 13.6                                    |  |            |
|                                    | FEMALE  | 16.0              | 35.5       | 3.6        | 30.2       | 5.3             |  | 24.9            | 1.8             |                 |  | 49.7                                    |  |            |
|                                    |         | 6.5               | 29.4       | 9.5        | 43.9       | 27.1            |  | 16.8            | 1.9             |                 |  | 21.4                                    |  |            |
| Medical Specialist (91B)           | MALE    | 3.2               | 30.7       | 9.1        | 58.0       | 35.2            |  | 11.4            | 3.5             |                 |  | 23.0                                    |  |            |
|                                    | FEMALE  | 5.2               | 28.9       | 2.2        | 37.1       | 11.1            |  | 8.9             | 7.4             |                 |  | 52.0                                    |  |            |
|                                    |         | 3.6               | 30.4       | 7.8        | 54.2       | 30.8            |  | 10.9            | 4.2             |                 |  | 28.3                                    |  |            |
| Food Service Specialist (94B)      | MALE    | 3.5               | 36.9       | 6.6        | 31.3       | 39.5            |  | 8.2             | 2.4             |                 |  | 19.2                                    |  |            |
|                                    | FEMALE  | 5.9               | 29.4       | 2.6        | 22.9       | 7.9             |  | 8.5             | 2.0             |                 |  | 30.8                                    |  |            |
|                                    |         | 4.0               | 35.3       | 5.8        | 29.5       | 32.8            |  | 8.3             | 2.3             |                 |  | 21.7                                    |  |            |
| Military Police (95B)              | MALE    | 3.6               | 33.2       | 7.4        | 53.6       | 30.3            |  | 7.7             | 2.4             |                 |  | 17.9                                    |  |            |
|                                    | FEMALE  | 4.9               | 43.7       | 5.8        | 54.4       | 4.9             |  | 14.6            | 1.9             |                 |  | 33.0                                    |  |            |
|                                    |         | 3.8               | 34.3       | 7.2        | 53.6       | 27.6            |  | 8.4             | 2.3             |                 |  | 19.5                                    |  |            |
| All MOS                            | MALE    | 4.5               | 32.1       | 8.5        | 49.8       | 33.6            |  | 10.1            | 2.7             |                 |  | 18.0                                    |  |            |
|                                    | FEMALE  | 5.4               | 31.4       | 3.4        | 31.0       | 7.9             |  | 11.0            | 3.2             |                 |  | 37.1                                    |  |            |
|                                    | OVERALL | 4.5               | 32.0       | 8.0        | 47.9       | 31.0            |  | 10.2            | 2.7             |                 |  | 19.9                                    |  |            |

Tables 6, 7, and 8 display data for acute injuries only (ICD9 codes 800-904.99, 910-957.99, 960-995.99), because the cause codes from STANAG are only available for *acute* injury hospitalizations. Table 6 displays the *trauma* codes for acute injuries; the trauma codes describe the general type of injury that occurred (PASBA2 Users Manual, 1993). All people admitted to the hospital with an acute injury ICD9 code should also have a corresponding trauma code, and less than 0.1% of the trauma codes were missing. However, over 40% of men and women had injuries in which duty status was unknown. Approximately 35% of men and 32% of women had injuries recorded as "on duty," 20% of which were injuries caused during activities other than training or exercises. Approximately 10% of the women's injuries were self-inflicted, while 3% of the men's injuries were self-inflicted. Less than 3% of the injuries for men and women were battle-related. Appendix 4 displays in greater detail the top 15 trauma cause codes for each MOS.

Table 7 displays the *summary* injury cause codes for acute injuries. These injury categories describe the conditions under which an injury occurred (PASBA2 Users Manual, 1993). The athletics and sports category includes physical fitness training; environmental factors includes heat and cold injuries, high and low pressure injuries, noise and hunger; and poisons includes ingesting or inhaling toxic substances (intentional and unintentional), stings or bites of reptiles or arthropods, and fire, hot liquids or corrosive substances. Falls and other unspecified agents were the cause of approximately 32% of injuries for men and women, and accidents in land transport caused approximately 16% of all injuries. Poisonings, fire, and hot or corrosive substances were the second largest cause of women's injuries (22%) and athletics and sports were the third largest cause of men's injuries (16%). War-related injuries (whether employed by the enemy or with one's own instrumentalities) accounted for 2.3% of the injuries in men and 1% of the injuries in women.

Table 8 displays *specific* injury cause codes for acute injuries. These categories have been elaborated into more specific injury causes than shown in Table 7 (PASBA2 Users Manual, 1993). Other Specified Agents accounted for approximately 10% of the injuries in both men and women; this category could not be further defined. Ingesting toxic substances accounted for 3.7% of men's injuries and 16.6% of women's injuries. Being a driver or passenger in a non-military vehicle accounted for 9.2% of the injuries in

men and 11.5% of the injuries in women. Fighting accounted for 6% of men's injuries, but only 1.8% of women's injuries. Parachuting from a military aircraft accounted for 4.5% of men's injuries and 1.5% of women's injuries. Falls or jumps from one level to another accounted for 5.3% of men's injuries and 6.3% of women's injuries. Appendix 5 displays the top 15 specific injury causes for each MOS.



**TABLE 6**  
**TRAUMA CODES FOR ACUTE INJURIES**

**MALES**

| <u>TRAUMA</u>                    | <u>Frequency</u> | <u>Percent</u> |
|----------------------------------|------------------|----------------|
| Unknown On/Off Duty, Nonmilitary | 10268            | 41.0           |
| *On Duty-other                   | 5165             | 20.6           |
| Off Duty-Accidental Injury       | 3885             | 15.5           |
| *On Duty-schemes, exercises      | 1479             | 5.9            |
| *On Duty-scheduled training      | 1382             | 5.5            |
| Assault                          | 1354             | 5.4            |
| Self-inflicted                   | 772              | 3.1            |
| *Battle Wound/Injury             | 698              | 2.8            |
| Intervention of legal authority  | 35               | 0.1            |
| *Males - Total On-Duty Injuries  | 34.8%            |                |

**FEMALE**

| <u>TRAUMA</u>                    | <u>Frequency</u> | <u>Percent</u> |
|----------------------------------|------------------|----------------|
| Unknown On/Off Duty, Nonmilitary | 721              | 43.1           |
| *On Duty-other                   | 322              | 19.3           |
| Off Duty-Accidental Injury       | 223              | 13.3           |
| Self-inflicted                   | 166              | 9.9            |
| *On Duty-scheduled training      | 138              | 8.3            |
| *On Duty-schemes, exercises      | 55               | 3.3            |
| Assault                          | 30               | 1.8            |
| *Battle Wound/Injury             | 17               | 1.0            |
| *Females-Total On-Duty Injuries  | 31.9%            |                |

**TABLE 7**  
**SUMMARY INJURY CAUSE CODES FOR ACUTE INJURIES**

**MALE**

| <u>INJURY</u>                            | <u>Frequency</u> | <u>Percent</u> |
|--|------------------|----------------|
| Falls, other agents                      | 7854             | 31.4           |
| Accidents-Land Transport                 | 4239             | 16.9           |
| Athletics & Sports                       | 3967             | 15.8           |
| Machinery, tools                         | 3064             | 12.2           |
| Poisons, fire, hot/corrosive substances  | 1921             | 7.7            |
| Accidents-Air Transport                  | 1232             | 4.9            |
| Environmental Factors                    | 982              | 3.9            |
| Guns, explosives                         | 980              | 3.9            |
| Instrumentalities of War-Enemy           | 549              | 2.2            |
| Complications-Medical                    | 180              | 0.7            |
| Instrumentalities of War-Self, Accidents | 50               | 0.2            |
| Accidents-Water Transport                | 20               | 0.1            |

**FEMALE**

| <u>INJURY</u>                            | <u>Frequency</u> | <u>Percent</u> |
|--|------------------|----------------|
| Falls, other agents                      | 541              | 32.4           |
| Poisons, fire, hot/corrosive substances  | 366              | 21.9           |
| Accidents-Land Transport                 | 264              | 15.8           |
| Machinery, tools                         | 179              | 10.7           |
| Athletics & Sports                       | 148              | 8.9            |
| Environmental Factors                    | 70               | 4.2            |
| Complications-Medical                    | 51               | 3.1            |
| Accidents-Air Transport                  | 27               | 1.6            |
| Instrumentalities of War-Enemy           | 13               | 0.8            |
| Guns, explosives                         | 10               | 0.6            |
| Instrumentalities of War-Self, Accidents | 3                | 0.2            |

**TABLE 8**  
**TOP 15 SPECIFIC INJURY CAUSE CODES FOR ACUTE INJURIES**

**MALES**

| <b><u>INJURY</u></b>                   | <b><u>Frequency</u></b> | <b><u>Percent</u></b> |
|--|-------------------------|-----------------------|
| Other Specified Agents                 | 2368                    | 9.5                   |
| Driver, Passenger-Non Military Vehicle | 2308                    | 9.2                   |
| Cutting/piercing instrument            | 1536                    | 6.1                   |
| Fighting                               | 1515                    | 6.1                   |
| Fall/jump-different level              | 1334                    | 5.3                   |
| Parachute-Military aircraft            | 1118                    | 4.5                   |
| Basketball                             | 1043                    | 4.2                   |
| Football                               | 1010                    | 4.0                   |
| Fall/jump-same level                   | 1007                    | 4.0                   |
| Injest toxic substance                 | 924                     | 3.7                   |
| Twist, turn, slip (no fall)            | 733                     | 2.9                   |
| Motorcycle                             | 639                     | 2.6                   |
| Excessive Heat                         | 582                     | 2.3                   |
| Bullets/projectile                     | 502                     | 2.0                   |
| Other sports                           | 463                     | 1.8                   |

**FEMALES**

| <b><u>INJURY</u></b>                   | <b><u>Frequency</u></b> | <b><u>Percent</u></b> |
|--|-------------------------|-----------------------|
| Injest toxic substance                 | 278                     | 16.6                  |
| Driver, Passenger-Non Military Vehicle | 193                     | 11.5                  |
| Other Specified Agents                 | 168                     | 10.0                  |
| Fall/jump-different level              | 106                     | 6.3                   |
| Fall/jump-same level                   | 100                     | 6.0                   |
| Cutting/piercing instrument            | 89                      | 5.3                   |
| Twist, turn, slip (no fall)            | 54                      | 3.2                   |
| Excessive Heat                         | 40                      | 2.4                   |
| Fall/jump-stairs or ladder             | 39                      | 2.3                   |
| Driver, Passenger-Military Vehicle     | 33                      | 2.0                   |
| Ill-Fitting Shoes, Clothes             | 32                      | 1.9                   |
| Other sports                           | 31                      | 1.9                   |
| Fighting                               | 30                      | 1.8                   |
| Therapeutic drugs                      | 30                      | 1.8                   |
| Basketball                             | 27                      | 1.6                   |

## DISCUSSION

This report is the first to define hospitalizations for injuries and musculoskeletal conditions by occupational MOS, and by design is descriptive in nature. This initial report is the first in a series investigating injuries as related to occupation. This study found the highest rate of injury/poisoning (260 per 10,000 person-years) and musculoskeletal hospitalizations (248 per 10,000 person-years) for men was in Infantrymen (MOS 11B). The highest rate of musculoskeletal hospitalizations (310 per 10,000 person-years) for women was among Light-wheeled Vehicle Mechanics (MOS 63B), and the highest rate of injury/poisoning hospitalizations (206 per 10,000 person-years) was in Medical Equipment Repairer (MOS 91A). Demographic differences (such as age, race or rank) among and between the various MOSs will account for some of the crude differences displayed in this report. Nonetheless, if one's interest is in identifying MOSs with high injury rates, then demographic differences may be less important. Future analyses and reports will include multivariate statistics that will control simultaneously for available demographic variables. However, such analyses are beyond the scope of this report, the purpose of which was only to identify MOSs with the highest hospitalization rates.

This study revealed that certain MOSs experience higher rates of hospitalization for injuries and musculoskeletal conditions. Furthermore, hospitalization rates for men and women vary widely by MOS. Certain types of injuries are more common in certain MOSs; this may be the nature of the job. For example, if a job does not require jumping out of airplanes, parachute-related injuries are expected to be rare in that job category.

Thirty percent of acute injuries were coded as "on duty," while over 40% were coded as "unknown whether on or off duty, nonmilitary injuries." It is highly unlikely that this code was used for nonmilitary injuries in our study, because only active duty enlisted personnel were included in the study. Consequently, this code was for acute injuries that were unknown as to whether they occurred on duty or off duty. A recent hospital record validation study (Amoroso, unpublished, 1997) suggests that a high percentage of the injuries coded as "unknown whether on or off duty" are actually classifiable based on the information readily available in the hard copy medical record. Furthermore, as many as 50% of these injuries may actually be duty-related. Identifying these cases with a specific category (i.e., on duty-scheduled training) will yield a better

understanding of where these injuries occurred. The number of injuries occurring on duty undoubtedly would increase if the unknown category were coded more accurately. However, at a minimum, over 30% of injuries are coded "on duty," and are believed to be accurately coded. It is also possible that some hospitals record duty status more completely than others, and this rate would vary by hospital. Furthermore, the trauma codes are not mutually exclusive. The duty status does not have to be coded. For example, if a person was hospitalized for an assault that occurred on-duty, the trauma category could be coded as "Assault" or as "On-duty." Refining of the trauma code categories would eliminate this duplicity.

Analysis of the specific injury cause codes revealed that "Other Specified Agents" caused 10% of women's injuries and 9.5% of men's injuries. This category contains miscellaneous causes that cannot be classified into one of the other STANAG injury categories. The list of injury codes is exhaustive, and it is possible that these injury causes are so varied they cannot be grouped into smaller descriptive categories.

Several minor deficiencies or errors in the data were discovered during the analysis. Small errors in the data for gender coding are evident because women appear in the MOSs closed to women. These individuals were incorrectly coded, but represented only 0.06% to 0.20% of the population of any MOS. Perhaps other MOSs have similar errors in gender coding, but this would not be discovered in the absence of such an obvious inconsistency. If the range of error is similar in the other MOSs as well, then the gender coding error per MOS is quite small. It is possible that the other MOSs had soldiers incorrectly coded with respect to gender, and this would influence the subsequent gender analyses of hospitalizations and injuries. However, since the known percentage of error is so small, we do not believe that it exerts any meaningful influence on the results.

The next step in research may be a further analysis of the MOSs with high hospitalization rates. Specific ICD9 codes could be studied, in addition to general acute injuries and musculoskeletal conditions. MOSs could be analyzed prospectively using longitudinal statistical methods to determine how hospitalization rates have been changing with time. Potential confounding variables affecting the outcomes, such as age, race, gender, and physical fitness level should be controlled for in the analysis. These study results would enable specific MOSs to be targeted for modifications in training or other interventions to reduce injury rates.

## **CONCLUSION**

Rates of hospitalization for injury and musculoskeletal conditions vary substantially both by gender and occupation. The demographic composition of the top 25 Army occupations also shows substantial variation.

Multivariate analyses that control for demographic factors may allow isolation of the role of occupational demands on risk of injury and subsequent musculoskeletal conditions. Further research on the MOSs with high injury and musculoskeletal hospitalization rates is needed. MOSs should be analyzed using multivariate techniques with potential confounding variables controlled for in the analysis. These study results do provide a strong indication of which MOSs are at high risk of injury, and point directly to several specific MOSs that may be good candidates for intervention.

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## APPENDICES



**APPENDIX 1**  
**ENLISTED MOS PHYSICAL DEMANDS AND TASKS,**  
**FREQUENCY BY PERSON-TIME, 1990-1994**

| MOS | Title                     | Gender Restriction | Physical Demands | Physical Requirements - Tasks  | 5 Year Person-Time | % Total Enlisted |
|-----|---------------------------|--------------------|------------------|--|--------------------|------------------|
| 11B | Infantryman               | Closed to women    | Very heavy       | <ol style="list-style-type: none"> <li>1. Frequently visually identifies vehicles, equipment, and individuals at long distances.</li> <li>2. Occasionally raises and carries 160 pounds person on back.</li> <li>3. Frequently performs all other tasks while carrying a minimum of 65 pounds, evenly distributed over entire body.</li> <li>4. Frequently digs, lifts, and shovels 21 pounds scoops of dirt in bent, stooped or kneeling position.</li> <li>5. Must be able to hear oral commands in outdoor area from distances up to 50 meters.</li> <li>6. Frequently walks, runs, crawls, and climbs over varying terrain for a distance of up to 25 miles.</li> <li>7. Frequently runs for short distances.</li> <li>8. Occasionally walks slowly for 2 hours out of 6 while carrying 26 pounds.</li> <li>9. Frequently gives oral commands in outside area at distances up to 50 meters.</li> <li>10. Frequently lifts and lowers 32 pounds bags shoulder high.</li> <li>11. Frequently throws 1 pound object 40 meters.</li> <li>12. Occasionally throws 1 pound object 40 meters.</li> <li>13. Occasionally climbs a rope a distance of up to 30 feet.</li> <li>14. Occasionally performs all other tasks while carrying a minimum of 65 pounds evenly distributed over entire body.</li> </ol> | 194,384            | 7.10             |
| 11C | Indirect Fire Infantryman | Closed to women    | Very heavy       | <ol style="list-style-type: none"> <li>1. Frequently performs all other tasks while carrying a minimum of 65 pounds, evenly distributed over entire body.</li> <li>2. Frequently runs for short distances.</li> <li>3. Occasionally raises and carries 160 pounds person on back.</li> <li>4. Occasionally throws 1 pound object of 40 meters.</li> <li>5. Frequently lifts and lowers 32 pound bags shoulder high.</li> <li>6. Occasionally lifts and lowers 282 pounds 6 inches as part of a 2 soldier team (prorated 141 pounds).</li> <li>7. Frequently gives oral commands in outside area at distances up to 50 meters.</li> <li>8. Frequently digs, lifts, and shovels 21 pounds scoops of dirt in bent, stooped or kneeling position.</li> <li>9. Occasionally walks slowly for 2 hours out of 6 while carrying up to 41 pounds.</li> <li>10. Frequently lifts and carries rapidly for short distances, 156 pounds as part of a 2 soldier team (prorated 78 pounds).</li> <li>11. Frequently lifts 27 pounds object 4 feet high and places in vertical tube.</li> <li>12. Occasionally digs, lifts, and shovels 21 pounds scoops of dirt.</li> </ol>   | 35,822             | 1.30             |

| MOS | Title                                | Gender Restriction | Physical Demands | Physical Requirements - Tasks   | 5 Year Person-Time | % Total Enlisted |
|-----|--------------------------------------|--------------------|------------------|---|--------------------|------------------|
| 11H | Heavy Anti-armor Weapons Infantryman | Closed to women    | Very heavy       | <ol style="list-style-type: none"> <li>1. Frequently performs all other tasks while carrying a minimum of 65 pounds, evenly distributed over entire body.</li> <li>2. Constantly visually identifies vehicles, equipment, and individuals at long distances.</li> <li>3. Occasionally walks, runs, crawls, and climbs over varying terrain for a distance of up to 25 miles.</li> <li>4. Frequently raises and carries 160 pounds person on back.</li> <li>5. Occasionally digs, lifts, and shovels 21 pounds scoops of dirt in bent, stooped or kneeling position.</li> <li>6. Occasionally walks slowly for 2 hours out of 6 while carrying a minimum of 26 pounds.</li> <li>7. Frequently gives oral commands in outside area at distances up to 50 meters.</li> <li>8. Frequently lifts 55 pounds 3 feet high, moves laterally 5 feet and places object in tube.</li> <li>9. Occasionally carries 153 pounds 10 meters.</li> <li>10. Occasionally performs all other tasks while carrying a minimum of 65 pounds, evenly distributed over entire body.</li> </ol>   | 27,850             | 1.00             |
| 11M | Fighting Vehicle Infantryman         | Closed to women    | Very heavy       | <ol style="list-style-type: none"> <li>1. Frequently performs all other tasks while carrying a minimum of 65 pounds, evenly distributed over entire body.</li> <li>2. Occasionally raises and carries 160 pounds person on back.</li> <li>3. Frequently digs, lifts, and shovels 21 pounds scoops of dirt in bent, stooped or kneeling position.</li> <li>4. Frequently visually identifies vehicles, equipment, and individuals at long distances.</li> <li>5. Frequently throws 1 pound object a distance of 40 meters.</li> <li>6. Occasionally walks, runs, crawls, and climbs over varying terrain for a distance of up to 25 miles.</li> <li>7. Occasionally walks slowly for 2 hours out of 6 while carrying 26 pounds.</li> <li>8. Frequently gives oral commands in outside area at distances up to 50 meters.</li> <li>9. Frequently lifts 89 pounds 5 feet.</li> <li>10. Frequently lowers 58 pounds 3 feet.</li> <li>11. Must be able to hear oral commands in outdoor area from distances up to 50 meters.</li> <li>12. Occasionally throws 1 pound object 40 meters.</li> <li>13. Frequently lifts 45 pounds waist high.</li> <li>14. Occasionally lifts 80 pounds chest high.</li> <li>15. Occasionally digs, lifts, and shovels 21 pounds scoops of dirt.</li> <li>16. Frequently lifts 55 pounds over head.</li> <li>17. Occasionally performs all other tasks while carrying a minimum of 65 pounds evenly distributed over entire body.</li> </ol> | 71,738             | 2.60             |

| MOS | Title                   | Gender Restriction | Physical Demands | Physical Requirements - Tasks  | 5 Year Person-Time | % Total Enlisted |
|-----|-------------------------|--------------------|------------------|--|--------------------|------------------|
| 12B | Combat Engineer         | Closed to women    | Very heavy       | <ol style="list-style-type: none"> <li>1. Frequently lifts 124 pounds and carries 25 feet.</li> <li>2. Occasionally lifts 90 pounds and carries 25 feet.</li> <li>3. Occasionally pushes and pulls 500 pounds using a torque as part of a 2 soldier team (prorated at 250 pounds per soldier).</li> <li>4. Occasionally digs to fill 33 pounds sandbags.</li> <li>5. Must possess normal color vision.</li> <li>6. Must possess finger dexterity in both hands.</li> </ol>   | 55,718             | 2.00             |
| 13B | Cannon Crewmember       | Closed to women    | Very heavy       | <ol style="list-style-type: none"> <li>1. Frequently lifts 184 pounds 3 feet and carries 6 feet as part of a 2 soldier team (prorated at 97 pounds per soldier).</li> <li>2. Frequently lifts 243 pounds 2 feet and carries 30 feet as part of a 2 soldier team (prorated at 121.5 pounds per soldier).</li> <li>3. Constantly lifts 200 pounds 3 feet and carries 4 feet as part of a 2 soldier team (prorated at 100 pounds per soldier).</li> <li>4. Constantly utilizes visual sighting devices.</li> <li>5. Must possess red/green color discrimination</li> </ol>  | 96,059             | 3.50             |
| 13F | Fire Support Specialist | Closed to women    | Very heavy       | <ol style="list-style-type: none"> <li>1. Frequently lifts and lowers 70 pounds 3 feet.</li> <li>2. Occasionally lifts and lowers 75 pounds and carries 8 feet.</li> <li>3. Frequently digs, lifts and shovels 10 pounds scoops of dirt in bent, stooped or kneeling position.</li> <li>4. Occasionally performs all other tasks while carrying a minimum of 65 pounds, evenly distributed over entire body.</li> <li>5. Constantly uses binoculars, lasers and other optical sighting devices.</li> <li>6. Must be able to hear a wide range of human voice tones through headphones.</li> <li>7. Must possess normal color vision.</li> <li>8. Must possess finger dexterity in both hands.</li> </ol> | 27,249             | 1.00             |
| 19D | Cavalry Scout           | Closed to women    | Very heavy       | <ol style="list-style-type: none"> <li>1. Frequently lifts 100 pounds 4 feet and carries 5 meters.</li> <li>2. Occasionally lifts 100 pounds 4 feet and carries 5 meters.</li> <li>3. Frequently digs, lifts, and shovels 21 pounds scoops of dirt 2 feet by 3 feet while bending, stooping and kneeling.</li> <li>4. Frequently climbs 9 feet.</li> <li>5. Must possess normal color vision correctable to 20/20 in one eye and 20/100 in the other.</li> <li>6. Must possess finger dexterity in both hands.</li> </ol>  | 43,602             | 1.60             |

| MOS | Title                               | Gender Restriction | Physical Demands | Physical Requirements - Tasks   | 5 Year Person-Time | % Total Enlisted |
|-----|-------------------------------------|--------------------|------------------|---|--------------------|------------------|
| 19K | Armor Crewman                       | Closed to women    | Very heavy       | <ol style="list-style-type: none"> <li>1. Frequently lifts 125 pounds 1 foot.</li> <li>2. Occasionally lifts and carries 130 pounds 150 feet.</li> <li>3. Frequently climbs 9 feet.</li> <li>4. Must possess normal color vision, and vision correctable to 20/20 in one eye and 20/100 in the other.</li> <li>5. Must possess finger dexterity in both hands.</li> </ol>   | 73,069             | 2.70             |
| 31C | Radio Operator-Maintainer           | Open               | Very heavy       | <ol style="list-style-type: none"> <li>1. Frequently lifts 42 pounds.</li> <li>2. Occasionally lifts 100 pounds and carries 3 feet.</li> <li>3. Occasionally pulls with 400 ft/lb of force.</li> <li>4. Must possess finger dexterity in both hands.</li> <li>5. Must be able to hear a wide range of human voice tones.</li> <li>6. Frequently speaks into a microphone.</li> </ol>  | 26,360             | 1.00             |
| 31K | Combat Signaler                     | Unknown            | Unknown          | Discontinued job code 31 Oct 93. New code 31U, Signal Support Systems Specialist.   | 22,801             | 0.80             |
| 52D | Power-Generation Equipment Repairer | Open               | Very heavy       | <ol style="list-style-type: none"> <li>1. Occasionally lifts/lowers 250 pounds up/down 2 feet as part of a two soldier team prorated at 125 pounds per soldier using authorized lifting devices.</li> <li>2. Occasionally lifts and lowers 150 pounds up/down 4 feet as part of a two soldier team prorated at 75 pounds per soldier.</li> <li>3. Occasionally lifts/lowers and carries 42 pounds.</li> <li>4. Must possess normal color vision.</li> <li>5. Must possess finger dexterity in both hands.</li> <li>6. Frequently reads complex schematic diagrams.</li> </ol> | 29,308             | 1.10             |
| 54B | Chemical Operations Specialist      | Open               | Very heavy       | <ol style="list-style-type: none"> <li>1. Many tasks routinely are performed in MOPP 1-4 equipment.</li> <li>2. Frequently pushes and pulls 474 pounds 3 feet (task may require two soldiers).</li> <li>3. Constantly raises from horizontal to vertical position 237 pounds three feet.</li> <li>4. Occasionally lifts and carries 86 pounds approximately 50 feet.</li> <li>5. Must possess normal color vision.</li> </ol>   | 38,410             | 1.40             |
| 63B | Light-wheeled Vehicle Mechanic      | Open               | Very heavy       | <ol style="list-style-type: none"> <li>1. Occasionally lifts 230 pounds as part of a 2 soldier team (prorated at 115 pounds).</li> <li>2. Occasionally lifts 150 pounds 6 feet, carries 50 feet and climbs 5 feet as part of a 2 soldier team (prorated at 75 pounds per soldier).</li> <li>3. Must possess normal color vision.</li> <li>4. Frequently reads detailed technical manuals.</li> <li>5. Must possess finger dexterity in both hands.</li> <li>6. Frequently lifts 75 pounds and carries 50 feet.</li> </ol>   | 80,607             | 2.90             |

| MOS | Title                                | Gender Restriction | Physical Demands | Physical Requirements - Tasks  | 5 Year Person-Time | % Total Enlisted |
|-----|--------------------------------------|--------------------|------------------|--|--------------------|------------------|
| 63H | Track Vehicle Repairer               | Open               | Very heavy       | <ol style="list-style-type: none"> <li>1. Occasionally lifts 400 pounds 4 feet and carries 50 feet as part of a 4 soldier team (prorated 100 pounds).</li> <li>2. Frequently lifts 70 pounds 5 feet and carries 50 feet.</li> <li>3. Occasionally lifts and lowers 218 pounds as part of a 2 soldier team (prorated 109 pounds).</li> <li>4. Must possess normal color vision.</li> <li>5. Frequently reads complex schematic diagrams.</li> <li>6. Must possess finger dexterity in both hands.</li> </ol>  | 23,262             | 0.90             |
| 71L | Administrative Specialist            | Open               | Medium           | <ol style="list-style-type: none"> <li>1. Frequently lifts 20 pounds and carries 3 miles.</li> <li>2. Verbally provides assistance and instructions.</li> <li>3. Frequently stands, stoops, and kneels for a period of 4 hours duration.</li> <li>4. Frequently sits for a period of 8 hours duration.</li> <li>5. Must possess finger dexterity in both hands.</li> <li>6. Visually reviews documents and correspondence.</li> </ol>  | 78,327             | 2.90             |
| 75B | Personnel Administration Specialist  | Open               | Medium           | <ol style="list-style-type: none"> <li>1. Occasionally lifts 25 pounds and carries 1/4 mile.</li> <li>2. Occasionally sits for a period of 5 hours duration.</li> <li>3. Frequently stands, stoops and kneels for a period of 4 hours duration.</li> <li>4. Must possess finger dexterity in both hands.</li> <li>5. Frequently reviews documents and correspondence.</li> <li>6. Frequently provides guidance and assistance verbally.</li> </ol>   | 27,156             | 1.00             |
| 76C | Equipment Records & Parts Specialist | Unknown            | Unknown          | Discontinued job code 31 Oct 93. Changed to 92A, Automated Logistical Specialist.  | 24,695             | 0.90             |
| 76Y | Unit Supply Specialist               | Unknown            | Unknown          | Discontinued job code 31 Oct 93. Changed to 92A, Automated Logistical Specialist, and 92Y, Unit Supply Specialist.   | 62,715             | 2.30             |
| 77F | Petroleum Supply Specialist          | Open               | Very heavy       | <ol style="list-style-type: none"> <li>1. Frequently lifts 235 pounds 8 inches as part of a 2 soldier team (prorated at 117.5 per soldier).</li> <li>2. Frequently lifts 100 pounds 4 feet and carries 50 feet.</li> <li>3. Frequently pushes and pulls 100 pounds 5 feet.</li> <li>4. Occasionally climb and descend 50 feet.</li> <li>5. Occasionally digs, lifts, and shovels 21 pounds scoops of dirt 5 x 5 feet while bending, stooping or kneeling.</li> <li>6. Must possess normal color vision and depth perception.</li> <li>7. Frequently inspects visually.</li> <li>8. Frequently writes reports and compiles data.</li> </ol> | 37,938             | 1.40             |

| MOS | Title                      | Gender Restriction | Physical Demands | Physical Requirements - Tasks  | 5 Year Person-Time | % Total Enlisted |
|-----|----------------------------|--------------------|------------------|--|--------------------|------------------|
| 88M | Motor Transport Operator   | Open               | Very heavy       | <ol style="list-style-type: none"> <li>1. Occasionally lifts and pulls 130 pounds.</li> <li>2. Constantly lifts and pivots 342 pounds as part of a 2 soldier team (prorated 171 pounds per soldier).</li> <li>3. Must possess red/green color discrimination.</li> <li>4. Constantly listens to engines to detect unusual sounds.</li> <li>5. Frequently reads maps, signs and signals.</li> </ol>   | 70,858             | 2.60             |
| 91A | Medical Equipment Repairer | Open               | Moderately heavy | <ol style="list-style-type: none"> <li>1. Occasionally lifts and carries 67 pounds.</li> <li>2. Must possess hand/eye coordination.</li> <li>3. Discontinued job code, 30 Apr 92. Changed to 91B, Medical Specialist.</li> </ol>   | 26,179             | 1.00             |
| 91B | Medical Specialist         | Open               | Moderately heavy | <ol style="list-style-type: none"> <li>1. Must possess normal color vision.</li> <li>2. Must possess finger dexterity in both hands.</li> </ol>  | 73,080             | 2.70             |
| 94B | Food Service Specialist    | Open               | Heavy            | <ol style="list-style-type: none"> <li>1. Occasionally lifts 100 pounds 2 feet and carries 100 feet as part of a 2 soldier team (prorated 50 pounds).</li> <li>2. Frequently pushes, pulls, lifts and carries 50 pounds.</li> <li>3. Occasionally digs, lifts, and shovels 21 pounds scoops of dirt 3 x 3 feet while bending, stooping or kneeling.</li> <li>4. Frequently stands and/or walks for a period of 4 hours duration.</li> <li>5. Must possess normal color vision.</li> <li>6. Must possess finger dexterity in both hands.</li> <li>7. Frequently writes to keep records and compile data.</li> </ol> | 72,473             | 2.60             |
| 95B | Military Police            | Open               | Moderately heavy | <ol style="list-style-type: none"> <li>1. Lifts a maximum of 80 pounds with frequent lifting of 40 pounds.</li> <li>2. Occasionally lifts and carries 70 pounds.</li> <li>3. Frequently stands for extended periods of time.</li> <li>4. Frequently speaks and listens using radio equipment.</li> <li>5. Frequently writes reports and compiles data.</li> <li>6. Must possess red/green color discrimination.</li> </ol>   | 98,430             | 3.60             |

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**APPENDIX 2**  
**YEARLY MOS TOTALS BY GENDER**

| DUTY MOS GENDER |              | YEAR  |       |       |       |       | TOTAL  |
|-----------------|--------------|-------|-------|-------|-------|-------|--------|
|                 |              | 1990  | 1991  | 1992  | 1993  | 1994  |        |
| 11B             | MALE         | 47021 | 43823 | 37779 | 34098 | 31664 | 194384 |
| 11C             | MALE         | 8651  | 8178  | 6638  | 6293  | 6063  | 35822  |
| 11H             | MALE         | 7204  | 6478  | 4906  | 4702  | 4560  | 27850  |
| 11M             | MALE         | 13515 | 15775 | 14108 | 13801 | 14539 | 71738  |
| 12B             | MALE         | 14054 | 13662 | 10723 | 8923  | 8357  | 55718  |
| 13B             | MALE         | 24367 | 23610 | 18764 | 15429 | 13889 | 96059  |
| 13F             | MALE         | 6164  | 5951  | 5445  | 4999  | 4691  | 27249  |
| 19D             | MALE         | 9726  | 9973  | 8839  | 7770  | 7294  | 43602  |
| 19K             | MALE         | 15927 | 17330 | 14921 | 12860 | 12030 | 73069  |
| 31C             | FEMALE       | 932   | 760   | 539   | 376   | 295   | 2902   |
|                 | MALE         | 7585  | 6379  | 4229  | 2934  | 2332  | 23459  |
| 31C             | Yearly Total | 8517  | 7140  | 4767  | 3310  | 2627  | 26360  |
| 31K             | FEMALE       | 458   | 335   | 286   | 124   | 31    | 1233   |
|                 | MALE         | 6882  | 6518  | 5404  | 2240  | 523   | 21568  |
| 31K             | Yearly Total | 7340  | 6852  | 5690  | 2364  | 554   | 22801  |
| 52D             | FEMALE       | 289   | 257   | 249   | 285   | 284   | 1364   |
|                 | MALE         | 7018  | 6313  | 5642  | 4824  | 4147  | 27944  |
| 52D             | Yearly Total | 7307  | 6570  | 5891  | 5109  | 4431  | 29308  |
| 54B             | FEMALE       | 764   | 678   | 640   | 648   | 685   | 3415   |
|                 | MALE         | 8165  | 7693  | 6642  | 6256  | 6239  | 34995  |
| 54B             | Yearly Total | 8929  | 8371  | 7282  | 6904  | 6923  | 38410  |
| 63B             | FEMALE       | 1393  | 1193  | 1119  | 1144  | 1185  | 6035   |
|                 | MALE         | 17365 | 16338 | 14644 | 13702 | 12523 | 74572  |
| 63B             | Yearly Total | 18758 | 17531 | 15763 | 14846 | 13708 | 80607  |
| 63H             | FEMALE       | 279   | 259   | 257   | 228   | 243   | 1266   |
|                 | MALE         | 5228  | 5172  | 4478  | 3713  | 3404  | 21996  |
| 63H             | Yearly Total | 5508  | 5431  | 4735  | 3941  | 3647  | 23262  |
| 71L             | FEMALE       | 7914  | 7513  | 7039  | 6514  | 6284  | 35265  |
|                 | MALE         | 9768  | 9453  | 8762  | 7654  | 7425  | 43062  |
| 71L             | Yearly Total | 17682 | 16967 | 15801 | 14168 | 13709 | 78327  |
| 75B             | FEMALE       | 1544  | 1390  | 1290  | 1252  | 1301  | 6776   |
|                 | MALE         | 4513  | 4334  | 3960  | 3836  | 3738  | 20380  |
| 75B             | Yearly Total | 6057  | 5724  | 5249  | 5087  | 5038  | 27156  |
| 76C             | FEMALE       | 1611  | 1623  | 1580  | 747   | 179   | 5740   |
|                 | MALE         | 5720  | 5505  | 4904  | 2211  | 615   | 18955  |
| 76C             | Yearly Total | 7331  | 7128  | 6485  | 2958  | 793   | 24695  |
| 76Y             | FEMALE       | 4206  | 3939  | 3561  | 1459  | 353   | 13518  |
|                 | MALE         | 14933 | 14214 | 12742 | 5660  | 1649  | 49197  |
| 76Y             | Yearly Total | 19139 | 18152 | 16303 | 7118  | 2002  | 62715  |
| 77F             | FEMALE       | 1552  | 1502  | 1355  | 1421  | 1478  | 7309   |
|                 | MALE         | 7243  | 6641  | 5758  | 5440  | 5548  | 30629  |
| 77F             | Yearly Total | 8795  | 8143  | 7114  | 6860  | 7026  | 37938  |
| 88M             | FEMALE       | 2263  | 2103  | 1869  | 1854  | 1934  | 10022  |
|                 | MALE         | 15297 | 13997 | 11731 | 10154 | 9657  | 60836  |
| 88M             | Yearly Total | 17560 | 16100 | 13600 | 12008 | 11591 | 70858  |

**APPENDIX 2**  
**YEARLY MOS TOTALS BY GENDER**

| DUTY MOS GENDER  |        | YEAR   |        |        |        |        | TOTAL   |
|------------------|--------|--------|--------|--------|--------|--------|---------|
|                  |        | 1990   | 1991   | 1992   | 1993   | 1994   |         |
| 91A              | FEMALE | 3151   | 2168   | 265    | 7      | 40     | 5631    |
|                  | MALE   | 11257  | 8246   | 827    | 23     | 196    | 20549   |
| 91A Yearly Total |        | 14408  | 10414  | 1092   | 30     | 236    | 26179   |
| 91B              | FEMALE | 1046   | 1809   | 3526   | 3631   | 3460   | 13472   |
|                  | MALE   | 5742   | 8349   | 15714  | 15876  | 13927  | 59609   |
| 91B Yearly Total |        | 6787   | 10158  | 19240  | 19508  | 17387  | 73080   |
| 94B              | FEMALE | 3262   | 3130   | 3140   | 2952   | 2800   | 15284   |
|                  | MALE   | 13721  | 12948  | 11708  | 9922   | 8890   | 57189   |
| 94B Yearly Total |        | 16983  | 16078  | 14848  | 12873  | 11690  | 72473   |
| 95B              | FEMALE | 2259   | 2050   | 1944   | 2014   | 2026   | 10293   |
|                  | MALE   | 20745  | 19717  | 16931  | 15658  | 15087  | 88138   |
| 95B Yearly Total |        | 23003  | 21767  | 18874  | 17672  | 17114  | 98430   |
| TOTAL            |        | 340731 | 327308 | 284857 | 243632 | 221566 | 1418093 |



# APPENDIX 3 MOS and 5-YEAR AGE GROUPS (Person-Years) 1990-1994

| DUTY MOS    | 5-YEAR AGE GROUP |      |         |       |         |       |         |       |         |       | Grand Total | % Enlisted |        |      |       |      |       |      |       |      |           |       |
|-------------|------------------|------|---------|-------|---------|-------|---------|-------|---------|-------|-------------|------------|--------|------|-------|------|-------|------|-------|------|-----------|-------|
|             | 17-19            | %    | 20-24   | %     | 25-29   | %     | 30-34   | %     | 35-39   | %     |             |            | 40-44  | %    | 45-49 | %    | 50-54 | %    | 55-59 | %    | Unknown   | %     |
| 11B         | 13,634           | 7.0% | 90,389  | 46.5% | 39,287  | 20.2% | 24,029  | 12.4% | 16,990  | 8.7%  | 7,050       | 3.6%       | 1,587  | 0.8% | 325   | 0.2% | 129   | 0.1% | 965   | 0.5% | 194,384   | 7.1   |
| 11C         | 2,423            | 6.8% | 17,006  | 47.5% | 7,136   | 19.9% | 4,436   | 12.4% | 3,066   | 8.6%  | 1,285       | 3.6%       | 265    | 0.7% | 50    | 0.1% | 24    | 0.1% | 133   | 0.4% | 35,822    | 1.3   |
| 11H         | 1,748            | 6.3% | 13,076  | 47.0% | 5,884   | 21.1% | 3,311   | 11.9% | 2,569   | 9.2%  | 942         | 3.4%       | 181    | 0.7% | 37    | 0.1% | 16    | 0.1% | 86    | 0.3% | 27,850    | 1.0   |
| 11M         | 4,966            | 6.9% | 34,166  | 47.6% | 16,021  | 22.3% | 8,730   | 12.2% | 5,176   | 7.2%  | 1,893       | 2.6%       | 396    | 0.6% | 74    | 0.1% | 40    | 0.1% | 278   | 0.4% | 71,738    | 2.6   |
| 12B         | 3,954            | 7.1% | 26,752  | 48.0% | 12,305  | 22.1% | 7,391   | 13.3% | 3,734   | 6.7%  | 1,108       | 2.0%       | 215    | 0.4% | 41    | 0.1% | 27    | 0.0% | 191   | 0.3% | 55,718    | 2.0   |
| 13B         | 5,604            | 5.8% | 45,419  | 47.3% | 22,836  | 23.8% | 12,908  | 13.4% | 6,455   | 6.7%  | 1,886       | 2.0%       | 399    | 0.4% | 116   | 0.1% | 55    | 0.1% | 382   | 0.4% | 96,059    | 3.5   |
| 13F         | 1,965            | 7.2% | 12,092  | 44.4% | 6,134   | 22.5% | 3,804   | 14.0% | 2,180   | 8.0%  | 773         | 2.8%       | 163    | 0.6% | 39    | 0.1% | 12    | 0.0% | 87    | 0.3% | 27,249    | 1.0   |
| 19D         | 3,219            | 7.4% | 19,380  | 44.4% | 9,388   | 21.5% | 6,488   | 14.9% | 3,660   | 8.4%  | 1,052       | 2.4%       | 202    | 0.5% | 42    | 0.1% | 17    | 0.0% | 153   | 0.4% | 43,602    | 1.6   |
| 19K         | 4,864            | 6.7% | 29,892  | 40.9% | 16,054  | 22.0% | 12,517  | 17.1% | 7,044   | 9.6%  | 1,923       | 2.6%       | 364    | 0.5% | 90    | 0.1% | 38    | 0.1% | 283   | 0.4% | 73,069    | 2.7   |
| 31C         | 1,500            | 5.7% | 11,099  | 42.1% | 7,191   | 27.3% | 4,277   | 16.2% | 1,798   | 6.8%  | 339         | 1.3%       | 55     | 0.2% | 18    | 0.1% | 8     | 0.0% | 76    | 0.3% | 26,360    | 1.0   |
| 31K         | 1,421            | 6.2% | 12,151  | 53.3% | 6,183   | 27.1% | 2,271   | 10.0% | 558     | 2.4%  | 88          | 0.4%       | 25     | 0.1% | 15    | 0.1% | 10    | 0.0% | 79    | 0.3% | 22,801    | 0.8   |
| 52D         | 1,508            | 5.1% | 12,122  | 41.4% | 8,840   | 30.2% | 4,491   | 15.3% | 1,770   | 6.0%  | 391         | 1.3%       | 72     | 0.2% | 17    | 0.1% | 11    | 0.0% | 87    | 0.3% | 29,308    | 1.1   |
| 54B         | 1,652            | 4.3% | 10,881  | 28.3% | 8,573   | 22.3% | 8,168   | 21.3% | 6,010   | 15.6% | 2,385       | 6.2%       | 532    | 1.4% | 78    | 0.2% | 18    | 0.0% | 113   | 0.3% | 38,410    | 1.4   |
| 63B         | 3,948            | 4.9% | 31,402  | 39.0% | 19,364  | 24.0% | 13,406  | 16.6% | 8,872   | 11.0% | 2,665       | 3.3%       | 498    | 0.6% | 106   | 0.1% | 35    | 0.0% | 313   | 0.4% | 80,607    | 2.9   |
| 63H         | 696              | 3.0% | 6,210   | 26.7% | 4,963   | 21.3% | 5,589   | 24.0% | 4,209   | 18.1% | 1,241       | 5.3%       | 255    | 1.1% | 40    | 0.2% | 7     | 0.0% | 53    | 0.2% | 23,262    | 0.9   |
| 71L         | 2,939            | 3.8% | 24,074  | 30.7% | 17,557  | 22.4% | 13,528  | 17.3% | 12,336  | 15.7% | 5,889       | 7.5%       | 1,442  | 1.8% | 246   | 0.3% | 24    | 0.0% | 291   | 0.4% | 78,327    | 2.9   |
| 75B         | 1,008            | 3.7% | 9,364   | 34.5% | 8,332   | 30.7% | 5,118   | 18.8% | 2,416   | 8.9%  | 653         | 2.4%       | 130    | 0.5% | 26    | 0.1% | 11    | 0.0% | 99    | 0.4% | 27,156    | 1.0   |
| 76C         | 1,660            | 6.7% | 10,999  | 44.5% | 7,838   | 31.7% | 3,086   | 12.5% | 815     | 3.3%  | 165         | 0.7%       | 22     | 0.1% | 15    | 0.1% | 9     | 0.0% | 86    | 0.3% | 24,695    | 0.9   |
| 76Y         | 2,496            | 4.0% | 18,692  | 29.8% | 15,086  | 24.1% | 12,742  | 20.3% | 9,560   | 15.2% | 3,176       | 5.1%       | 689    | 1.1% | 125   | 0.2% | 16    | 0.0% | 134   | 0.2% | 62,715    | 2.3   |
| 77F         | 2,207            | 5.8% | 16,172  | 42.6% | 10,697  | 28.2% | 5,152   | 13.6% | 2,515   | 6.6%  | 768         | 2.0%       | 200    | 0.5% | 47    | 0.1% | 19    | 0.0% | 163   | 0.4% | 37,938    | 1.4   |
| 88M         | 2,884            | 4.1% | 26,849  | 37.9% | 19,029  | 26.9% | 12,100  | 17.1% | 7,299   | 10.3% | 1,947       | 2.7%       | 395    | 0.6% | 90    | 0.1% | 24    | 0.0% | 242   | 0.3% | 70,858    | 2.6   |
| 91A         | 2,399            | 9.2% | 15,794  | 60.3% | 5,406   | 20.6% | 1,754   | 6.7%  | 550     | 2.1%  | 122         | 0.5%       | 29     | 0.1% | 22    | 0.1% | 9     | 0.0% | 95    | 0.4% | 26,179    | 1.0   |
| 91B         | 4,106            | 5.6% | 28,751  | 39.3% | 15,792  | 21.6% | 10,951  | 15.0% | 8,042   | 11.0% | 3,854       | 5.3%       | 1,034  | 1.4% | 182   | 0.2% | 39    | 0.1% | 329   | 0.5% | 73,080    | 2.7   |
| 94B         | 3,086            | 4.3% | 26,741  | 36.9% | 17,758  | 24.5% | 10,500  | 14.5% | 8,412   | 11.6% | 4,161       | 5.7%       | 1,159  | 1.6% | 261   | 0.4% | 48    | 0.1% | 347   | 0.5% | 72,473    | 2.6   |
| 95B         | 4,538            | 4.6% | 41,700  | 42.4% | 24,498  | 24.9% | 13,845  | 14.1% | 8,725   | 8.9%  | 3,624       | 3.7%       | 920    | 0.9% | 140   | 0.1% | 59    | 0.1% | 381   | 0.4% | 98,430    | 3.6   |
| Grand Total | 80,422           | 5.7% | 591,174 | 41.7% | 332,151 | 23.4% | 210,589 | 14.9% | 134,761 | 9.5%  | 49,379      | 3.5%       | 11,228 | 0.8% | 2,241 | 0.2% | 702   | 0.0% | 5,444 | 0.4% | 1,418,093 | 51.9% |

# APPENDIX 4 TRAUMA CODES by MOS

| Infantryman=11B                  | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 1870  | 37.0     |
| On Duty-other                    | 1025  | 20.3     |
| Off Duty-Accident                | 669   | 13.2     |
| On Duty-schemes, exercises       | 532   | 10.5     |
| On Duty-scheduled training       | 398   | 7.9      |
| Assault                          | 231   | 4.6      |
| Battle Wound/Injury              | 178   | 3.5      |
| Self-inflicted                   | 137   | 2.7      |
| Intervention of legal authority  | 10    | 0.2      |

| Heavy Anti-armor Weapons Infantryman=11H | COUNT | % OF MOS |
|--|-------|----------|
| Unknown On/Off Duty, Nonmilitary         | 237   | 38.5     |
| On Duty-other                            | 119   | 19.3     |
| Off Duty-Accident                        | 84    | 13.6     |
| On Duty-schemes, exercises               | 58    | 9.4      |
| On Duty-scheduled training               | 43    | 7.0      |
| Battle Wound/Injury                      | 31    | 5.0      |
| Assault                                  | 23    | 3.7      |
| Self-inflicted                           | 21    | 3.4      |

| Indirect Fire Infantryman=11C    | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 306   | 38.6     |
| On Duty-other                    | 166   | 21.0     |
| Off Duty-Accident                | 113   | 14.3     |
| On Duty-schemes, exercises       | 61    | 7.7      |
| On Duty-scheduled training       | 51    | 6.4      |
| Assault                          | 48    | 6.1      |
| Self-inflicted                   | 26    | 3.3      |
| Battle Wound/Injury              | 21    | 2.7      |

| Fighting Vehicle Infantryman=11M | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 592   | 37.0     |
| On Duty-other                    | 353   | 22.0     |
| Off Duty-Accident                | 268   | 16.7     |
| On Duty-schemes, exercises       | 91    | 5.7      |
| Assault                          | 88    | 5.5      |
| On Duty-scheduled training       | 84    | 5.2      |
| Battle Wound/Injury              | 83    | 5.2      |
| Self-inflicted                   | 41    | 2.6      |
| Intervention of legal authority  | 2     | 0.1      |

| Combat Engineer=12B              | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 495   | 38.6     |
| On Duty-other                    | 272   | 21.2     |
| Off Duty-Accident                | 193   | 15.1     |
| On Duty-schemes, exercises       | 87    | 6.8      |
| Assault                          | 76    | 5.9      |
| On Duty-scheduled training       | 73    | 5.7      |
| Battle Wound/Injury              | 50    | 3.9      |
| Self-inflicted                   | 34    | 2.7      |
| Intervention of legal authority  | 1     | 0.1      |

| Cannon Crewmember=13B            | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 843   | 41.1     |
| On Duty-other                    | 450   | 22.0     |
| Off Duty-Accident                | 291   | 14.2     |
| Assault                          | 163   | 8.0      |
| On Duty-schemes, exercises       | 102   | 5.0      |
| On Duty-scheduled training       | 86    | 4.2      |
| Self-inflicted                   | 79    | 3.9      |
| Battle Wound/Injury              | 35    | 1.7      |

# APPENDIX 4 TRAUMA CODES by MOS

| Fire Support Specialist=13F      | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 238   | 41.2     |
| On Duty-other                    | 97    | 16.8     |
| Off Duty-Accident                | 86    | 14.9     |
| Assault                          | 39    | 6.8      |
| On Duty-scheduled training       | 36    | 6.2      |
| On Duty-schemes, exercises       | 36    | 6.2      |
| Battle Wound/Injury              | 23    | 4.0      |
| Self-inflicted                   | 21    | 3.6      |
| Intervention of legal authority  | 1     | 0.2      |

| Radio Operator-Maintainer=31C    | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 211   | 46.1     |
| Off Duty-Accident                | 74    | 16.2     |
| On Duty-other                    | 73    | 15.9     |
| On Duty-schemes, exercises       | 27    | 5.9      |
| Self-inflicted                   | 23    | 5.0      |
| On Duty-scheduled training       | 22    | 4.8      |
| Assault                          | 20    | 4.4      |
| Battle Wound/Injury              | 8     | 1.7      |

| Cavalry Scout=19D                | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 373   | 37.8     |
| On Duty-other                    | 219   | 22.2     |
| Off Duty-Accident                | 147   | 14.9     |
| On Duty-schemes, exercises       | 63    | 6.4      |
| On Duty-scheduled training       | 54    | 5.5      |
| Battle Wound/Injury              | 49    | 5.0      |
| Assault                          | 46    | 4.7      |
| Self-inflicted                   | 31    | 3.1      |
| Intervention of legal authority  | 4     | 0.4      |

| Combat Signaler=31K              | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 155   | 41.1     |
| Off Duty-Accident                | 83    | 22.0     |
| On Duty-other                    | 53    | 14.1     |
| Assault                          | 36    | 9.5      |
| On Duty-scheduled training       | 20    | 5.3      |
| Self-inflicted                   | 16    | 4.2      |
| Battle Wound/Injury              | 9     | 2.4      |
| On Duty-schemes, exercises       | 4     | 1.1      |
| Intervention of legal authority  | 1     | 0.3      |

| Armor Crewman=19K                | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 583   | 36.1     |
| On Duty-other                    | 479   | 29.7     |
| Off Duty-Accident                | 259   | 16.1     |
| On Duty-scheduled training       | 78    | 4.8      |
| On Duty-schemes, exercises       | 67    | 4.2      |
| Assault                          | 58    | 3.6      |
| Battle Wound/Injury              | 57    | 3.5      |
| Self-inflicted                   | 32    | 2.0      |

| Power Generation Equipment Repairer=52D | COUNT | % OF MOS |
|---|-------|----------|
| Unknown On/Off Duty, Nonmilitary        | 230   | 47.2     |
| On Duty-other                           | 92    | 18.9     |
| Off Duty-Accident                       | 78    | 16.0     |
| Assault                                 | 26    | 5.3      |
| On Duty-scheduled training              | 20    | 4.1      |
| Self-inflicted                          | 20    | 4.1      |
| On Duty-schemes, exercises              | 11    | 2.3      |
| Battle Wound/Injury                     | 9     | 1.8      |
| Intervention of legal authority         | 1     | 0.2      |

# APPENDIX 4 TRAUMA CODES by MOS

| Chemical Operations Specialist=54B | COUNT | % OF MOS |
|------------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary   | 288   | 43.4     |
| On Duty-other                      | 123   | 18.5     |
| Off Duty-Accident                  | 103   | 15.5     |
| On Duty-scheduled training         | 40    | 6.0      |
| On Duty-schemes, exercises         | 39    | 5.9      |
| Assault                            | 31    | 4.7      |
| Self-inflicted                     | 28    | 4.2      |
| Battle Wound/Injury                | 11    | 1.7      |
| Intervention of legal authority    | 1     | 0.2      |

| Light-wheeled vehicle mechanic=63B | COUNT | % OF MOS |
|------------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary   | 546   | 44.3     |
| On Duty-other                      | 249   | 20.2     |
| Off Duty-Accident                  | 206   | 16.7     |
| Assault                            | 80    | 6.5      |
| On Duty-scheduled training         | 52    | 4.2      |
| On Duty-schemes, exercises         | 46    | 3.7      |
| Self-inflicted                     | 31    | 2.5      |
| Battle Wound/Injury                | 22    | 1.8      |
| Intervention of legal authority    | 1     | 0.1      |

| Track Vehicle Repairer=63H       | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 134   | 43.4     |
| On Duty-other                    | 62    | 20.1     |
| Off Duty-Accident                | 55    | 17.8     |
| Assault                          | 19    | 6.1      |
| Self-inflicted                   | 15    | 4.9      |
| On Duty-scheduled training       | 11    | 3.6      |
| On Duty-schemes, exercises       | 9     | 2.9      |
| Battle Wound/Injury              | 4     | 1.3      |

| Administrative Specialist=71L    | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 376   | 48.2     |
| On Duty-other                    | 135   | 17.3     |
| Off Duty-Accident                | 126   | 16.2     |
| Self-inflicted                   | 45    | 5.8      |
| On Duty-scheduled training       | 34    | 4.4      |
| Assault                          | 30    | 3.8      |
| On Duty-schemes, exercises       | 30    | 3.8      |
| Battle Wound/Injury              | 4     | 0.5      |

| Personnel Administration Specialist=75B | COUNT | % OF MOS |
|---|-------|----------|
| Unknown On/Off Duty, Nonmilitary        | 137   | 43.8     |
| On Duty-other                           | 60    | 19.2     |
| Off Duty-Accident                       | 58    | 18.5     |
| On Duty-scheduled training              | 20    | 6.4      |
| Assault                                 | 19    | 6.1      |
| On Duty-schemes, exercises              | 9     | 2.9      |
| Self-inflicted                          | 9     | 2.9      |
| Battle Wound/Injury                     | 1     | 0.3      |

| Equipment Records & Parts Specialist=76C | COUNT | % OF MOS |
|--|-------|----------|
| Unknown On/Off Duty, Nonmilitary         | 158   | 45.5     |
| On Duty-other                            | 72    | 20.7     |
| Off Duty-Accident                        | 55    | 15.9     |
| Assault                                  | 17    | 4.9      |
| On Duty-scheduled training               | 16    | 4.6      |
| Self-inflicted                           | 15    | 4.3      |
| On Duty-schemes, exercises               | 12    | 3.5      |
| Battle Wound/Injury                      | 2     | 0.6      |

# APPENDIX 4 TRAUMA CODES by MOS

| Unit Supply Specialist=76Y       | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 403   | 48.6     |
| Off Duty-Accident                | 140   | 16.9     |
| On Duty-other                    | 138   | 16.6     |
| Assault                          | 49    | 5.9      |
| On Duty-scheduled training       | 37    | 4.5      |
| Self-inflicted                   | 32    | 3.9      |
| On Duty-schemes, exercises       | 21    | 2.5      |
| Battle Wound/Injury              | 10    | 1.2      |

| Medical Specialist=91A           | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 283   | 46.9     |
| On Duty-other                    | 102   | 16.9     |
| Off Duty-Accident                | 85    | 14.1     |
| Self-inflicted                   | 38    | 6.3      |
| Assault                          | 31    | 5.1      |
| On Duty-scheduled training       | 26    | 4.3      |
| On Duty-schemes, exercises       | 24    | 4.0      |
| Battle Wound/Injury              | 13    | 2.2      |
| Intervention of legal authority  | 2     | 0.3      |

| Petroleum Supply Specialist=77F  | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 282   | 42.6     |
| On Duty-other                    | 148   | 22.4     |
| Off Duty-Accident                | 97    | 14.7     |
| Assault                          | 39    | 5.9      |
| On Duty-schemes, exercises       | 31    | 4.7      |
| On Duty-scheduled training       | 26    | 3.9      |
| Self-inflicted                   | 24    | 3.6      |
| Battle Wound/Injury              | 14    | 2.1      |
| Intervention of legal authority  | 1     | 0.2      |

| Medical Specialist=91B           | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 548   | 46.9     |
| On Duty-other                    | 225   | 19.3     |
| Off Duty-Accident                | 185   | 15.8     |
| On Duty-scheduled training       | 62    | 5.3      |
| On Duty-schemes, exercises       | 50    | 4.3      |
| Assault                          | 45    | 3.9      |
| Self-inflicted                   | 42    | 3.6      |
| Battle Wound/Injury              | 10    | 0.9      |
| Intervention of legal authority  | 1     | 0.1      |

| Motor Transport Operator=88M     | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 628   | 48.6     |
| On Duty-other                    | 262   | 20.3     |
| Off Duty-Accident                | 181   | 14.0     |
| Assault                          | 61    | 4.7      |
| Self-inflicted                   | 48    | 3.7      |
| Battle Wound/Injury              | 43    | 3.3      |
| On Duty-scheduled training       | 43    | 3.3      |
| On Duty-schemes, exercises       | 24    | 1.9      |
| Intervention of legal authority  | 3     | 0.2      |

| Food Service Specialist=94B      | COUNT | % OF MOS |
|----------------------------------|-------|----------|
| Unknown On/Off Duty, Nonmilitary | 471   | 42.2     |
| On Duty-other                    | 219   | 19.6     |
| Off Duty-Accident                | 190   | 17.0     |
| Self-inflicted                   | 65    | 5.8      |
| On Duty-scheduled training       | 54    | 4.8      |
| On Duty-schemes, exercises       | 52    | 4.7      |
| Assault                          | 51    | 4.6      |
| Battle Wound/Injury              | 12    | 1.1      |
| Intervention of legal authority  | 2     | 0.2      |

**APPENDIX 4**  
**TRAUMA CODES by MOS**

| <b>Military Police=95B</b>       | <b>COUNT</b> | <b>% OF MOS</b> |
|----------------------------------|--------------|-----------------|
| Unknown On/Off Duty, Nonmilitary | 602          | 40.1            |
| On Duty-other                    | 294          | 19.6            |
| Off Duty-Accident                | 282          | 18.8            |
| On Duty-scheduled training       | 134          | 8.9             |
| Self-inflicted                   | 65           | 4.3             |
| Assault                          | 58           | 3.9             |
| On Duty-schemes, exercises       | 48           | 3.2             |
| Battle Wound/Injury              | 16           | 1.1             |
| Intervention of legal authority  | 4            | 0.3             |

# APPENDIX 5 SPECIFIC INJURY CAUSES BY MOS

| Infantryman=11B, MALES             | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|------------------------------------|--------------------------|-------------------------|
| Parachute-Military aircraft        | 562                      | 11.1                    |
| Driver, Passenger-Non Military Veh | 425                      | 8.4                     |
| Other Specified Agents             | 378                      | 7.5                     |
| Fall/jump-different level          | 327                      | 6.5                     |
| Cutting/piercing instrument        | 311                      | 6.2                     |
| Fighting                           | 272                      | 5.4                     |
| Fall/jump-same level               | 192                      | 3.8                     |
| Excessive Heat                     | 178                      | 3.5                     |
| Motorcycle                         | 162                      | 3.2                     |
| Injest toxic substance             | 153                      | 3.0                     |
| Football                           | 143                      | 2.8                     |
| Bullets/projectile                 | 141                      | 2.8                     |
| Twist, turn, slip (no fall)        | 114                      | 2.3                     |
| Basketball                         | 109                      | 2.2                     |
| Other sports                       | 100                      | 2.0                     |

| Indirect Fire Infantryman=11C, MALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|--------------------------------------|--------------------------|-------------------------|
| Other Specified Agents               | 67                       | 8.5                     |
| Parachute-Military aircraft          | 58                       | 7.3                     |
| Fighting                             | 54                       | 6.8                     |
| Driver, Passenger-Non Military Veh   | 53                       | 6.7                     |
| Cutting/piercing instrument          | 50                       | 6.3                     |
| Fall/jump-different level            | 49                       | 6.2                     |
| Fall/jump-same level                 | 33                       | 4.2                     |
| Football                             | 31                       | 3.9                     |
| Excessive Heat                       | 27                       | 3.4                     |
| Twist, turn, slip (no fall)          | 24                       | 3.0                     |
| Basketball                           | 23                       | 2.9                     |
| Injest toxic substance               | 23                       | 2.9                     |
| Motorcycle                           | 22                       | 2.8                     |
| Bullets/projectile                   | 19                       | 2.4                     |
| Fire, explosion                      | 16                       | 2.0                     |

| Heavy Anti-armor Weapons<br>Infantryman=11H, MALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|--|--------------------------|-------------------------|
| Driver, Passenger-Non Military Veh                 | 65                       | 10.6                    |
| Other Specified Agents                             | 52                       | 8.4                     |
| Parachute-Military aircraft                        | 49                       | 8.0                     |
| Fall/jump-different level                          | 43                       | 7.0                     |
| Cutting/piercing instrument                        | 33                       | 5.4                     |
| Football   | 28                       | 4.5                     |
| Fighting   | 27                       | 4.4                     |
| Motorcycle   | 27                       | 4.4                     |
| Injest toxic substance                             | 26                       | 4.2                     |
| Fall/jump-same level                               | 21                       | 3.4                     |
| Excessive Heat                                     | 17                       | 2.8                     |
| Twist, turn, slip (no fall)                        | 15                       | 2.4                     |
| Other sports                                       | 13                       | 2.1                     |
| Basketball   | 11                       | 1.8                     |
| Incident to Military Aircraft                      | 11                       | 1.8                     |

| Fighting Vehicle<br>Infantryman=11M, MALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|--|--------------------------|-------------------------|
| Other Specified Agents                     | 169                      | 10.5                    |
| Driver, Passenger-Non Military Veh         | 145                      | 9.1                     |
| Fighting                                   | 102                      | 6.4                     |
| Cutting/piercing instrument                | 90                       | 5.6                     |
| Fall/jump-different level                  | 75                       | 4.7                     |
| Football                                   | 70                       | 4.4                     |
| Excessive Heat                             | 58                       | 3.6                     |
| Twist, turn, slip (no fall)                | 53                       | 3.3                     |
| Fall/jump-same level                       | 46                       | 2.9                     |
| Occup Tracked/Semi Military Vehicle        | 46                       | 2.9                     |
| Basketball                                 | 43                       | 2.7                     |
| Injest toxic substance                     | 41                       | 2.6                     |
| Shell Fragment, other/unspecified          | 39                       | 2.4                     |
| Falling/projected obj/missile              | 36                       | 2.2                     |
| Driver, Passenger-Military Veh             | 35                       | 2.2                     |

# APPENDIX 5 SPECIFIC INJURY CAUSES BY MOS

| Combat Engineer=12B, MALES         | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|------------------------------------|--------------------------|-------------------------|
| Other Specified Agents             | 123                      | 9.6                     |
| Driver, Passenger-Non Military Veh | 115                      | 9.0                     |
| Cutting/piercing instrument        | 88                       | 6.9                     |
| Fighting                           | 83                       | 6.5                     |
| Fall/jump-different level          | 71                       | 5.5                     |
| Football                           | 47                       | 3.7                     |
| Parachute-Military aircraft        | 43                       | 3.4                     |
| Twist, turn, slip (no fall)        | 43                       | 3.4                     |
| Fall/jump-same level               | 41                       | 3.2                     |
| Basketball                         | 40                       | 3.1                     |
| Injest toxic substance             | 40                       | 3.1                     |
| Excessive Heat                     | 32                       | 2.5                     |
| Driver, Passenger-Military Veh     | 31                       | 2.4                     |
| Falling/projected obj/missile      | 23                       | 1.8                     |
| Other sports                       | 23                       | 1.8                     |

| Cannon Crewmember=13B, MALES       | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|------------------------------------|--------------------------|-------------------------|
| Other Specified Agents             | 224                      | 10.9                    |
| Driver, Passenger-Non Military Veh | 202                      | 9.9                     |
| Fighting                           | 164                      | 8.0                     |
| Cutting/piercing instrument        | 109                      | 5.3                     |
| Fall/jump-different level          | 103                      | 5.0                     |
| Injest toxic substance             | 91                       | 4.4                     |
| Basketball                         | 90                       | 4.4                     |
| Fall/jump-same level               | 88                       | 4.3                     |
| Football                           | 85                       | 4.1                     |
| Bullets/projectile                 | 55                       | 2.7                     |
| Falling/projected obj/missile      | 55                       | 2.7                     |
| Parachute-Military aircraft        | 54                       | 2.6                     |
| Twist, turn, slip (no fall)        | 53                       | 2.6                     |
| Motorcycle                         | 37                       | 1.8                     |
| Excessive Heat                     | 35                       | 1.7                     |

| Fire Support Specialist=13F, MALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|------------------------------------|--------------------------|-------------------------|
| Other Specified Agents             | 48                       | 8.3                     |
| Fighting                           | 46                       | 8.0                     |
| Parachute-Military aircraft        | 45                       | 7.8                     |
| Cutting/piercing instrument        | 41                       | 7.1                     |
| Driver, Passenger-Non Military Veh | 38                       | 6.6                     |
| Fall/jump-different level          | 30                       | 5.2                     |
| Fall/jump-same level               | 28                       | 4.9                     |
| Injest toxic substance             | 26                       | 4.5                     |
| Basketball                         | 24                       | 4.2                     |
| Football                           | 23                       | 4.0                     |
| Motorcycle                         | 21                       | 3.6                     |
| Bullets/projectile                 | 16                       | 2.8                     |
| Twist, turn, slip (no fall)        | 16                       | 2.8                     |
| Excessive Heat                     | 12                       | 2.1                     |
| Shell Fragment, other/unspecified  | 10                       | 1.7                     |

| Cavalry Scout=19D, MALES           | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|------------------------------------|--------------------------|-------------------------|
| Other Specified Agents             | 93                       | 9.4                     |
| Cutting/piercing instrument        | 79                       | 8.0                     |
| Driver, Passenger-Non Military Veh | 68                       | 6.9                     |
| Fighting                           | 59                       | 6.0                     |
| Fall/jump-different level          | 50                       | 5.1                     |
| Twist, turn, slip (no fall)        | 42                       | 4.3                     |
| Fall/jump-same level               | 38                       | 3.9                     |
| Football                           | 37                       | 3.8                     |
| Shell Fragment, other/unspecified  | 32                       | 3.2                     |
| Injest toxic substance             | 27                       | 2.7                     |
| Fall/jump-stairs or ladder         | 24                       | 2.4                     |
| Basketball                         | 22                       | 2.2                     |
| Parachute-Military aircraft        | 22                       | 2.2                     |
| Motorcycle                         | 21                       | 2.1                     |
| Other sports                       | 21                       | 2.1                     |



# APPENDIX 5 SPECIFIC INJURY CAUSES BY MOS

| Armor Crewman=19K, MALES            | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|-------------------------------------|--------------------------|-------------------------|
| Other Specified Agents              | 180                      | 11.2                    |
| Driver, Passenger-Non Military Veh  | 137                      | 8.5                     |
| Fall/jump-different level           | 96                       | 6.0                     |
| Cutting/piercing instrument         | 95                       | 5.9                     |
| Fighting                            | 72                       | 4.5                     |
| Football                            | 70                       | 4.3                     |
| Fall/jump-same level                | 69                       | 4.3                     |
| Basketball                          | 58                       | 3.6                     |
| Twist, turn, slip (no fall)         | 57                       | 3.5                     |
| Occup Tracked/Semi Military Vehicle | 53                       | 3.3                     |
| Injest toxic substance              | 49                       | 3.0                     |
| Motor Veh Non-traffic               | 49                       | 3.0                     |
| Falling/projected obj/missile       | 47                       | 2.9                     |
| Motorcycle                          | 43                       | 2.7                     |
| Static objects                      | 31                       | 1.9                     |

| Radio Operator-Maintainer=31C<br>MALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS | Radio Operator-Maintainer=31C<br>FEMALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|--|--------------------------|-------------------------|--|--------------------------|-------------------------|
| Driver, Passenger-Non Military Veh     | 40                       | 9.6                     | Injest toxic substance                   | 9                        | 22.5                    |
| Football                               | 31                       | 7.4                     | Fall/jump-different level                | 6                        | 15.0                    |
| Cutting/piercing instrument            | 29                       | 6.9                     | Driver, Passenger-Non Military Veh       | 4                        | 10.0                    |
| Other Specified Agents                 | 27                       | 6.5                     | Other Specified Agents                   | 3                        | 7.5                     |
| Parachute-Military aircraft            | 25                       | 6.0                     | Parachute-Military aircraft              | 3                        | 7.5                     |
| Basketball                             | 24                       | 5.7                     | Excessive Heat                           | 2                        | 5.0                     |
| Injest toxic substance                 | 23                       | 5.5                     | Ill-Fitting Shoes, Clothes               | 2                        | 5.0                     |
| Fighting                               | 21                       | 5.0                     | Athletics & Sports                       | 1                        | 2.5                     |
| Fall/jump-different level              | 17                       | 4.1                     | Mountaineering, skiing                   | 1                        | 2.5                     |
| Other sports                           | 13                       | 3.1                     | Basketball                               | 1                        | 2.5                     |
| Fall/jump-stairs or ladder             | 12                       | 2.9                     | Contact skin/toxic subst                 | 1                        | 2.5                     |
| Motorcycle                             | 12                       | 2.9                     | Cutting/piercing instrument              | 1                        | 2.5                     |
| Fall/jump-same level                   | 11                       | 2.6                     | Hot liquids/steam                        | 1                        | 2.5                     |
| Soccer/Football unspec                 | 11                       | 2.6                     | Lift, push, pull                         | 1                        | 2.5                     |
| Twist, turn, slip (no fall)            | 11                       | 2.6                     | Other sports                             | 1                        | 2.5                     |

# APPENDIX 5 SPECIFIC INJURY CAUSES BY MOS

| Combat Signaler=31K, MALES         | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS | Combat Signaler=31K, FEMALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|------------------------------------|--------------------------|-------------------------|------------------------------|--------------------------|-------------------------|
| Driver, Passenger-Non Military Veh | 51                       | 14.1                    | Other Specified Agents       | 3                        | 20.0                    |
| Fighting                           | 31                       | 8.6                     | Fall/jump-same level         | 2                        | 13.3                    |
| Cutting/piercing instrument        | 28                       | 7.7                     | Calisthenics/PT              | 1                        | 6.7                     |
| Other Specified Agents             | 21                       | 5.8                     | Cutting/piercing instrument  | 1                        | 6.7                     |
| Injest toxic substance             | 20                       | 5.5                     | Fall/jump-different level    | 1                        | 6.7                     |
| Basketball                         | 19                       | 5.2                     | Inhale toxic subst           | 1                        | 6.7                     |
| Fall/jump-different level          | 18                       | 5.0                     | Injest toxic substance       | 1                        | 6.7                     |
| Fall/jump-same level               | 18                       | 5.0                     | Other sports                 | 1                        | 6.7                     |
| Football                           | 16                       | 4.4                     | Softball                     | 1                        | 6.7                     |
| Fall/jump-stairs or ladder         | 10                       | 2.8                     | Therapeutic drugs            | 1                        | 6.7                     |
| Excessive Heat                     | 9                        | 2.5                     | Twist, turn, slip (no fall)  | 1                        | 6.7                     |
| Static objects                     | 9                        | 2.5                     | Unspecified Agent/Unknown    | 1                        | 6.7                     |
| Bullets/projectile                 | 8                        | 2.2                     |                              |                          |                         |
| Lift, push, pull                   | 6                        | 1.7                     |                              |                          |                         |
| Other sports                       | 6                        | 1.7                     |                              |                          |                         |

| Power Generation Equipment<br>Repairer=52D, MALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS | Power Generation Equipment<br>Repairer=52D, FEMALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|---|--------------------------|-------------------------|---|--------------------------|-------------------------|
| Other Specified Agents                            | 54                       | 11.5                    | Driver, Passenger-Non Military Veh                  | 3                        | 15.8                    |
| Driver, Passenger-Non Military Veh                | 40                       | 8.5                     | Other Specified Agents                              | 3                        | 15.8                    |
| Fighting  | 27                       | 5.8                     | Ill-Fitting Shoes, Clothes                          | 2                        | 10.5                    |
| Cutting/piercing instrument                       | 26                       | 5.6                     | Injest toxic substance                              | 2                        | 10.5                    |
| Fall/jump-same level                              | 26                       | 5.6                     | Tools, power or hand                                | 2                        | 10.5                    |
| Fall/jump-different level                         | 25                       | 5.3                     | Unspecified vaccine                                 | 1                        | 5.3                     |
| Injest toxic substance                            | 24                       | 5.1                     | Driver, Passenger-Military Veh                      | 1                        | 5.3                     |
| Basketball  | 20                       | 4.3                     | Fall/jump-different level                           | 1                        | 5.3                     |
| Motorcycle  | 17                       | 3.6                     | Fall/jump-stairs or ladder                          | 1                        | 5.3                     |
| Football  | 15                       | 3.2                     | Foreign obj - body orifice                          | 1                        | 5.3                     |
| Fall/jump-stairs or ladder                        | 12                       | 2.6                     | Motor Veh Non-traffic                               | 1                        | 5.3                     |
| Machinery   | 12                       | 2.6                     | Therapeutic drugs                                   | 1                        | 5.3                     |
| Other sports                                      | 11                       | 2.4                     |   |                          |                         |
| Driver, Passenger-Military Veh                    | 10                       | 2.1                     |   |                          |                         |
| Parachute-Military aircraft                       | 10                       | 2.1                     |   |                          |                         |

# APPENDIX 5 SPECIFIC INJURY CAUSES BY MOS

| Chemical Operations Specialist=54B<br>MALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS | Chemical Operations Specialist=54B<br>FEMALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|---|--------------------------|-------------------------|---|--------------------------|-------------------------|
| Other Specified Agents                      | 68                       | 11.1                    | Other Specified Agents                        | 10                       | 20.0                    |
| Driver, Passenger-Non Military Veh          | 55                       | 9.0                     | Injest toxic substance                        | 8                        | 16.0                    |
| Fall/jump-different level                   | 43                       | 7.0                     | Driver, Passenger-Non Military Veh            | 6                        | 12.0                    |
| Basketball                                  | 41                       | 6.7                     | Fall/jump-same level                          | 4                        | 8.0                     |
| Football                                    | 36                       | 5.9                     | Twist, turn, slip (no fall)                   | 4                        | 8.0                     |
| Fighting                                    | 35                       | 5.7                     | Cutting/piercing instrument                   | 2                        | 4.0                     |
| Cutting/piercing instrument                 | 32                       | 5.2                     | Falling/projected obj/missile                 | 2                        | 4.0                     |
| Parachute-Military aircraft                 | 30                       | 4.9                     | Fighting                                      | 2                        | 4.0                     |
| Injest toxic substance                      | 26                       | 4.2                     | Parachute-Military aircraft                   | 2                        | 4.0                     |
| Other sports                                | 18                       | 2.9                     | Pedestrian                                    | 2                        | 4.0                     |
| Fall/jump-same level                        | 17                       | 2.8                     | Sting of venomous arthropod                   | 2                        | 4.0                     |
| Twist, turn, slip (no fall)                 | 16                       | 2.6                     | Animals                                       | 1                        | 2.0                     |
| Fall/jump-stairs or ladder                  | 13                       | 2.1                     | Driver, Passenger-Military Veh                | 1                        | 2.0                     |
| Softball                                    | 12                       | 2.0                     | Excessive cold                                | 1                        | 2.0                     |
| Sting of venomous arthropod                 | 10                       | 1.6                     | Fall/jump-different level                     | 1                        | 2.0                     |

| Light-wheeled vehicle mechanic=63B<br>MALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS | Light-wheeled vehicle mechanic=63B<br>FEMALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|---|--------------------------|-------------------------|---|--------------------------|-------------------------|
| Other Specified Agents                      | 124                      | 10.8                    | Injest toxic substance                        | 10                       | 12.3                    |
| Driver, Passenger-Non Military Veh          | 114                      | 9.9                     | Driver, Passenger-Non Military Veh            | 8                        | 9.9                     |
| Fighting                                    | 83                       | 7.2                     | Cutting/piercing instrument                   | 7                        | 8.6                     |
| Cutting/piercing instrument                 | 73                       | 6.3                     | Other Specified Agents                        | 7                        | 8.6                     |
| Football                                    | 49                       | 4.3                     | Twist, turn, slip (no fall)                   | 6                        | 7.4                     |
| Twist, turn, slip (no fall)                 | 49                       | 4.3                     | Fall/jump-same level                          | 5                        | 6.2                     |
| Fall/jump-same level                        | 48                       | 4.2                     | Fall/jump-different level                     | 4                        | 4.9                     |
| Fall/jump-different level                   | 44                       | 3.8                     | Parachute-Military aircraft                   | 4                        | 4.9                     |
| Motorcycle                                  | 42                       | 3.6                     | Basketball                                    | 3                        | 3.7                     |
| Basketball                                  | 40                       | 3.5                     | Falling/projected obj/missile                 | 3                        | 3.7                     |
| Injest toxic substance                      | 38                       | 3.3                     | Driver, Passenger-Military Veh                | 2                        | 2.5                     |
| Parachute-Military aircraft                 | 28                       | 2.4                     | Other sports                                  | 2                        | 2.5                     |
| Bullets/projectile                          | 26                       | 2.3                     | Static objects                                | 2                        | 2.5                     |
| Softball                                    | 24                       | 2.1                     | Sting of venomous arthropod                   | 2                        | 2.5                     |
| Fall/jump-stairs or ladder                  | 23                       | 2.0                     | Mountaineering, skiing                        | 1                        | 1.2                     |

# APPENDIX 5 SPECIFIC INJURY CAUSES BY MOS

| Track Vehicle Repairer=63H, MALES  | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS | Track Vehicle Repairer=63H, FEMALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|------------------------------------|--------------------------|-------------------------|-------------------------------------|--------------------------|-------------------------|
| Other Specified Agents             | 32                       | 10.6                    | Twist, turn, slip (no fall)         | 2                        | 25.0                    |
| Driver, Passenger-Non Military Veh | 29                       | 9.6                     | Horsemananship                      | 1                        | 12.5                    |
| Cutting/piercing instrument        | 21                       | 7.0                     | Excessive cold                      | 1                        | 12.5                    |
| Fighting                           | 18                       | 6.0                     | Fall/jump-same level                | 1                        | 12.5                    |
| Injest toxic substance             | 16                       | 5.3                     | Fighting                            | 1                        | 12.5                    |
| Basketball                         | 14                       | 4.7                     | Injest toxic substance              | 1                        | 12.5                    |
| Falling/projected obj/missile      | 13                       | 4.3                     | Track/field                         | 1                        | 12.5                    |
| Fall/jump-same level               | 11                       | 3.7                     |                                     |                          |                         |
| Twist, turn, slip (no fall)        | 11                       | 3.7                     |                                     |                          |                         |
| Football                           | 10                       | 3.3                     |                                     |                          |                         |
| Fall/jump-different level          | 9                        | 3.0                     |                                     |                          |                         |
| Static objects                     | 9                        | 3.0                     |                                     |                          |                         |
| Bullets/projectile                 | 7                        | 2.3                     |                                     |                          |                         |
| Fire, explosion                    | 7                        | 2.3                     |                                     |                          |                         |
| Softball                           | 7                        | 2.3                     |                                     |                          |                         |

| Administrative Specialist=71L, MALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS | Administrative Specialist=71L, FEMALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|--------------------------------------|--------------------------|-------------------------|--|--------------------------|-------------------------|
| Basketball                           | 56                       | 11.1                    | Injest toxic substance                 | 47                       | 17.0                    |
| Other Specified Agents               | 46                       | 9.1                     | Driver, Passenger-Non Military Veh     | 39                       | 14.1                    |
| Driver, Passenger-Non Military Veh   | 45                       | 8.9                     | Other Specified Agents                 | 25                       | 9.0                     |
| Injest toxic substance               | 28                       | 5.6                     | Cutting/piercing instrument            | 18                       | 6.5                     |
| Cutting/piercing instrument          | 26                       | 5.2                     | Fall/jump-same level                   | 17                       | 6.1                     |
| Football                             | 26                       | 5.2                     | Fall/jump-different level              | 15                       | 5.4                     |
| Fighting                             | 24                       | 4.8                     | Fall/jump-stairs or ladder             | 10                       | 3.6                     |
| Fall/jump-different level            | 22                       | 4.4                     | Excessive Heat                         | 8                        | 2.9                     |
| Fall/jump-same level                 | 21                       | 4.2                     | Basketball                             | 7                        | 2.5                     |
| Twist, turn, slip (no fall)          | 20                       | 4.0                     | Twist, turn, slip (no fall)            | 7                        | 2.5                     |
| Softball                             | 15                       | 3.0                     | Lift, push, pull                       | 6                        | 2.2                     |
| Excessive Heat                       | 14                       | 2.8                     | Other sports                           | 6                        | 2.2                     |
| Parachute-Military aircraft          | 13                       | 2.6                     | Driver, Passenger-Military Veh         | 5                        | 1.8                     |
| Other sports                         | 11                       | 2.2                     | Animals                                | 4                        | 1.4                     |
| Soccer/Football unspec               | 8                        | 1.6                     | Calisthenics/PT                        | 4                        | 1.4                     |

# APPENDIX 5 SPECIFIC INJURY CAUSES BY MOS

| Personnel Administration Specialist= | HOSPITALIZATION | % OF INJURIES | Personnel Administration Specialist= | HOSPITALIZATION | % OF INJURIES |
|--------------------------------------|-----------------|---------------|--------------------------------------|-----------------|---------------|
| 75B, MALES                           | COUNT           | IN MOS        | 75B, FEMALES                         | COUNT           | IN MOS        |
| Basketball                           | 33              | 12.9          | Injest toxic substance               | 10              | 17.2          |
| Driver, Passenger-Non Military Veh   | 28              | 11.0          | Calisthenics/PT                      | 6               | 10.3          |
| Other Specified Agents               | 24              | 9.4           | Driver, Passenger-Non Military Veh   | 6               | 10.3          |
| Fighting                             | 15              | 5.9           | Other Specified Agents               | 5               | 8.6           |
| Parachute-Military aircraft          | 12              | 4.7           | Fall/jump-different level            | 4               | 6.9           |
| Twist, turn, slip (no fall)          | 11              | 4.3           | Fall/jump-same level                 | 4               | 6.9           |
| Cutting/piercing instrument          | 9               | 3.5           | Surgical Treatment                   | 2               | 3.4           |
| Football                             | 9               | 3.5           | Fighting                             | 2               | 3.4           |
| Fall/jump-different level            | 8               | 3.1           | Lift, push, pull                     | 2               | 3.4           |
| Fall/jump-same level                 | 8               | 3.1           | Motorcycle                           | 2               | 3.4           |
| Injest toxic substance               | 8               | 3.1           | Softball                             | 2               | 3.4           |
| Bullets/projectile                   | 6               | 2.4           | Baseball                             | 1               | 1.7           |
| Driver, Passenger-Military Veh       | 6               | 2.4           | Cutting/piercing instrument          | 1               | 1.7           |
| Fall/jump-stairs or ladder           | 6               | 2.4           | Excessive Heat                       | 1               | 1.7           |
| Softball                             | 6               | 2.4           | Excessive cold                       | 1               | 1.7           |

| Equipment Records & Parts Specialist= | HOSPITALIZATION | % OF INJURIES | Equipment Records & Parts Specialist= | HOSPITALIZATION | % OF INJURIES |
|---------------------------------------|-----------------|---------------|---------------------------------------|-----------------|---------------|
| 76C, MALES                            | COUNT           | IN MOS        | 76C, FEMALES                          | COUNT           | IN MOS        |
| Basketball                            | 31              | 11.2          | Injest toxic substance                | 15              | 21.7          |
| Other Specified Agents                | 31              | 11.2          | Fall/jump-different level             | 6               | 8.7           |
| Driver, Passenger-Non Military Veh    | 30              | 10.8          | Driver, Passenger-Non Military Veh    | 5               | 7.2           |
| Fighting                              | 25              | 9.0           | Other Specified Agents                | 4               | 5.8           |
| Football                              | 20              | 7.2           | Marching/drilling                     | 3               | 4.3           |
| Fall/jump-different level             | 17              | 6.1           | Other sports                          | 3               | 4.3           |
| Fall/jump-same level                  | 13              | 4.7           | Therapeutic drugs                     | 3               | 4.3           |
| Cutting/piercing instrument           | 12              | 4.3           | Twist, turn, slip (no fall)           | 3               | 4.3           |
| Injest toxic substance                | 9               | 3.2           | Driver, Passenger-Military Veh        | 2               | 2.9           |
| Twist, turn, slip (no fall)           | 8               | 2.9           | Fall/jump-same level                  | 2               | 2.9           |
| Soccer/Football unspec                | 7               | 2.5           | Foreign obj - body orifice            | 2               | 2.9           |
| Driver, Passenger-Military Veh        | 6               | 2.2           | Parachute-Military aircraft           | 2               | 2.9           |
| Parachute-Military aircraft           | 6               | 2.2           | Static objects                        | 2               | 2.9           |
| Static objects                        | 6               | 2.2           | Mountaineering, skiing                | 1               | 1.4           |
| Lift, push, pull                      | 5               | 1.8           | Other nontherapeutic test             | 1               | 1.4           |

# **APPENDIX 5** **SPECIFIC INJURY CAUSES BY MOS**

| Unit Supply Specialist=76Y, MALES  | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS | Unit Supply Specialist=76Y, FEMALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|------------------------------------|--------------------------|-------------------------|-------------------------------------|--------------------------|-------------------------|
| Driver, Passenger-Non Military Veh | 83                       | 11.8                    | Other Specified Agents              | 17                       | 13.7                    |
| Other Specified Agents             | 80                       | 11.3                    | Injest toxic substance              | 16                       | 12.9                    |
| Basketball                         | 74                       | 10.5                    | Driver, Passenger-Non Military Veh  | 13                       | 10.5                    |
| Cutting/piercing instrument        | 45                       | 6.4                     | Cutting/piercing instrument         | 7                        | 5.6                     |
| Fighting                           | 34                       | 4.8                     | Fall/jump-different level           | 7                        | 5.6                     |
| Football                           | 33                       | 4.7                     | Fall/jump-same level                | 7                        | 5.6                     |
| Fall/jump-different level          | 25                       | 3.5                     | Twist, turn, slip (no fall)         | 6                        | 4.8                     |
| Injest toxic substance             | 24                       | 3.4                     | Hot liquids/steam                   | 5                        | 4.0                     |
| Parachute-Military aircraft        | 22                       | 3.1                     | Other sports                        | 5                        | 4.0                     |
| Twist, turn, slip (no fall)        | 22                       | 3.1                     | Basketball                          | 4                        | 3.2                     |
| Fall/jump-same level               | 21                       | 3.0                     | Fall/jump-stairs or ladder          | 4                        | 3.2                     |
| Other sports                       | 16                       | 2.3                     | Fighting                            | 3                        | 2.4                     |
| Driver, Passenger-Military Veh     | 15                       | 2.1                     | Therapeutic drugs                   | 3                        | 2.4                     |
| Excessive Heat                     | 14                       | 2.0                     | Baseball                            | 2                        | 1.6                     |
| Motorcycle                         | 14                       | 2.0                     | Excessive Heat                      | 2                        | 1.6                     |

| Petroleum Supply Specialist=77F, MALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS | Petroleum Supply Specialist=77F, FEMALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|--|--------------------------|-------------------------|--|--------------------------|-------------------------|
| Other Specified Agents                 | 53                       | 10.0                    | Injest toxic substance                   | 26                       | 19.8                    |
| Driver, Passenger-Non Military Veh     | 50                       | 9.4                     | Other Specified Agents                   | 17                       | 13.0                    |
| Fighting                               | 41                       | 7.7                     | Driver, Passenger-Non Military Veh       | 15                       | 11.5                    |
| Basketball                             | 34                       | 6.4                     | Fall/jump-different level                | 10                       | 7.6                     |
| Cutting/piercing instrument            | 27                       | 5.1                     | Driver, Passenger-Military Veh           | 8                        | 6.1                     |
| Fall/jump-same level                   | 27                       | 5.1                     | Fall/jump-same level                     | 7                        | 5.3                     |
| Injest toxic substance                 | 26                       | 4.9                     | Fall/jump-stairs or ladder               | 4                        | 3.1                     |
| Football                               | 24                       | 4.5                     | Fighting                                 | 4                        | 3.1                     |
| Fall/jump-different level              | 17                       | 3.2                     | Inhale toxic subst                       | 4                        | 3.1                     |
| Other sports                           | 13                       | 2.4                     | Cutting/piercing instrument              | 3                        | 2.3                     |
| Twist, turn, slip (no fall)            | 13                       | 2.4                     | Fire, explosion                          | 3                        | 2.3                     |
| Driver, Passenger-Military Veh         | 12                       | 2.3                     | Softball                                 | 3                        | 2.3                     |
| Falling/projected obj/missile          | 12                       | 2.3                     | Twist, turn, slip (no fall)              | 3                        | 2.3                     |
| Lift, push, pull                       | 11                       | 2.1                     | Shell fragment, other/unspecified        | 2                        | 1.5                     |
| Bullets/projectile                     | 10                       | 1.9                     | Excessive Heat                           | 2                        | 1.5                     |

# APPENDIX 5 SPECIFIC INJURY CAUSES BY MOS

| Motor Transport Operator=<br>88M, MALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS | Motor Transport Operator=<br>88M, FEMALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|---|--------------------------|-------------------------|---|--------------------------|-------------------------|
| Other Specified Agents                  | 156                      | 13.6                    | Injest toxic substance                    | 27                       | 18.9                    |
| Driver, Passenger-Non Military Veh      | 118                      | 10.3                    | Driver, Passenger-Non Military Veh        | 18                       | 12.6                    |
| Fighting                                | 72                       | 6.3                     | Fall/jump-different level                 | 12                       | 8.4                     |
| Driver, Passenger-Military Veh          | 63                       | 5.5                     | Other Specified Agents                    | 12                       | 8.4                     |
| Cutting/piercing instrument             | 62                       | 5.4                     | Fall/jump-same level                      | 8                        | 5.6                     |
| Fall/jump-different level               | 59                       | 5.1                     | Driver, Passenger-Military Veh            | 6                        | 4.2                     |
| Basketball                              | 56                       | 4.9                     | Cutting/piercing instrument               | 5                        | 3.5                     |
| Fall/jump-same level                    | 52                       | 4.5                     | Therapeutic drugs                         | 5                        | 3.5                     |
| Injest toxic substance                  | 47                       | 4.1                     | Twist, turn, slip (no fall)               | 5                        | 3.5                     |
| Football                                | 41                       | 3.6                     | Sting of venomous arthropod               | 4                        | 2.8                     |
| Motorcycle                              | 36                       | 3.1                     | Calisthenics/PT                           | 3                        | 2.1                     |
| Twist, turn, slip (no fall)             | 34                       | 3.0                     | Fall/jump-stairs or ladder                | 3                        | 2.1                     |
| Falling/projected obj/missile           | 23                       | 2.0                     | Motor Veh Non-traffic                     | 3                        | 2.1                     |
| Other sports                            | 22                       | 1.9                     | Shell fragment, other unspecified         | 2                        | 1.4                     |
| Motor Veh Non-traffic                   | 19                       | 1.7                     | Bullets/projectile                        | 2                        | 1.4                     |

| Medical Specialist=91A, MALES      | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS | Medical Specialist=91A, FEMALES    | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|------------------------------------|--------------------------|-------------------------|------------------------------------|--------------------------|-------------------------|
| Other Specified Agents             | 47                       | 9.6                     | Injest toxic substance             | 18                       | 15.5                    |
| Driver, Passenger-Non Military Veh | 40                       | 8.2                     | Driver, Passenger-Non Military Veh | 14                       | 12.1                    |
| Fighting                           | 31                       | 6.4                     | Cutting/piercing instrument        | 9                        | 7.8                     |
| Fall/jump-same level               | 29                       | 5.9                     | Other Specified Agents             | 8                        | 6.9                     |
| Fall/jump-different level          | 27                       | 5.5                     | Fall/jump-different level          | 7                        | 6.0                     |
| Injest toxic substance             | 26                       | 5.3                     | Fall/jump-same level               | 6                        | 5.2                     |
| Cutting/piercing instrument        | 23                       | 4.7                     | Fall/jump-same level               | 6                        | 5.2                     |
| Football                           | 23                       | 4.7                     | Twist, turn, slip (no fall)        | 4                        | 3.4                     |
| Basketball                         | 22                       | 4.5                     | Excessive Heat                     | 4                        | 3.4                     |
| Parachute-Military aircraft        | 18                       | 3.7                     | Therapeutic drugs                  | 4                        | 3.4                     |
| Motorcycle                         | 15                       | 3.1                     | Driver, Passenger-Military Veh     | 3                        | 2.6                     |
| Other sports                       | 12                       | 2.5                     | Fall/jump-stairs or ladder         | 3                        | 2.6                     |
| Driver, Passenger-Military Veh     | 11                       | 2.3                     | Fighting                           | 3                        | 2.6                     |
| Twist, turn, slip (no fall)        | 10                       | 2.0                     | Ill-Fitting Shoes, Clothes         | 3                        | 2.6                     |
| Baseball                           | 8                        | 1.6                     | Calisthenics/PT                    | 2                        | 1.7                     |
|                                    |                          |                         | Foreign obj - body orifice         | 2                        | 1.7                     |

# APPENDIX 5 SPECIFIC INJURY CAUSES BY MOS

| Medical Specialist=91B, MALES      | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS | Medical Specialist=91B, FEMALES    | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|------------------------------------|--------------------------|-------------------------|------------------------------------|--------------------------|-------------------------|
| Driver, Passenger-Non Military Veh | 111                      | 11.1                    | Driver, Passenger-Non Military Veh | 21                       | 12.6                    |
| Other Specified Agents             | 77                       | 7.7                     | Other Specified Agents             | 21                       | 12.6                    |
| Basketball                         | 64                       | 6.4                     | Injest toxic substance             | 20                       | 12.0                    |
| Fighting                           | 62                       | 6.2                     | Fall/jump-different level          | 10                       | 6.0                     |
| Cutting/piercing instrument        | 61                       | 6.1                     | Fall/jump-same level               | 8                        | 4.8                     |
| Football                           | 48                       | 4.8                     | Cutting/piercing instrument        | 7                        | 4.2                     |
| Fall/jump-same level               | 45                       | 4.5                     | Sting of venomous arthropod        | 6                        | 3.6                     |
| Fall/jump-different level          | 42                       | 4.2                     | Excessive Heat                     | 5                        | 3.0                     |
| Injest toxic substance             | 38                       | 3.8                     | Fighting                           | 5                        | 3.0                     |
| Excessive Heat                     | 34                       | 3.4                     | Softball                           | 5                        | 3.0                     |
| Parachute-Military aircraft        | 31                       | 3.1                     | High/low pressure                  | 4                        | 2.4                     |
| Motorcycle                         | 29                       | 2.9                     | Fall/jump-stairs or ladder         | 3                        | 1.8                     |
| Twist, turn, slip (no fall)        | 29                       | 2.9                     | Inhale toxic subst                 | 3                        | 1.8                     |
| Other sports                       | 22                       | 2.2                     | Lift, push, pull                   | 3                        | 1.8                     |
| Bullets/projectile                 | 17                       | 1.7                     | Mines                              | 3                        | 1.8                     |

| Food Service Specialist=94B, MALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS | Food Service Specialist=94B, FEMALES | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|------------------------------------|--------------------------|-------------------------|--------------------------------------|--------------------------|-------------------------|
| Cutting/piercing instrument        | 95                       | 10.6                    | Injest toxic substance               | 46                       | 21.2                    |
| Driver, Passenger-Non Military Veh | 83                       | 9.2                     | Driver, Passenger-Non Military Veh   | 22                       | 10.1                    |
| Other Specified Agents             | 77                       | 8.6                     | Cutting/piercing instrument          | 19                       | 8.8                     |
| Fighting                           | 61                       | 6.8                     | Fall/jump-different level            | 14                       | 6.5                     |
| Injest toxic substance             | 50                       | 5.6                     | Fall/jump-same level                 | 14                       | 6.5                     |
| Basketball                         | 47                       | 5.2                     | Other Specified Agents               | 14                       | 6.5                     |
| Fall/jump-different level          | 45                       | 5.0                     | Excessive Heat                       | 10                       | 4.6                     |
| Fall/jump-same level               | 45                       | 5.0                     | Basketball                           | 6                        | 2.8                     |
| Football                           | 40                       | 4.4                     | Fall/jump-stairs or ladder           | 6                        | 2.8                     |
| Twist, turn, slip (no fall)        | 26                       | 2.9                     | Calisthenics/PT                      | 4                        | 1.8                     |
| Parachute-Military aircraft        | 25                       | 2.8                     | Hot liquids/steam                    | 4                        | 1.8                     |
| Fire, explosion                    | 22                       | 2.4                     | Inhale toxic subst                   | 4                        | 1.8                     |
| Bullets/projectile                 | 20                       | 2.2                     | Animals                              | 3                        | 1.4                     |
| Motorcycle                         | 19                       | 2.1                     | Fire, explosion                      | 3                        | 1.4                     |
| Ill-Fitting Shoes, Clothes         | 15                       | 1.7                     | Foreign obj - body orifice           | 3                        | 1.4                     |



# APPENDIX 5 SPECIFIC INJURY CAUSES BY MOS

| Military Police=95B, MALES         | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS | Military Police=95B, FEMALES       | HOSPITALIZATION<br>COUNT | % OF INJURIES<br>IN MOS |
|------------------------------------|--------------------------|-------------------------|------------------------------------|--------------------------|-------------------------|
| Driver, Passenger-Non Military Veh | 143                      | 10.6                    | Injest toxic substance             | 22                       | 14.0                    |
| Other Specified Agents             | 117                      | 8.7                     | Driver, Passenger-Non Military Veh | 19                       | 12.1                    |
| Fall/jump-different level          | 72                       | 5.3                     | Other Specified Agents             | 19                       | 12.1                    |
| Cutting/piercing instrument        | 71                       | 5.3                     | Fall/jump-same level               | 15                       | 9.6                     |
| Fall/jump-same level               | 59                       | 4.4                     | Ill-Fitting Shoes, Clothes         | 15                       | 9.6                     |
| Ill-Fitting Shoes, Clothes         | 59                       | 4.4                     | Cutting/piercing instrument        | 8                        | 5.1                     |
| Fighting                           | 56                       | 4.2                     | Fall/jump-different level          | 8                        | 5.1                     |
| Football                           | 55                       | 4.1                     | Other sports                       | 5                        | 3.2                     |
| Basketball                         | 48                       | 3.6                     | Twist, turn, slip (no fall)        | 5                        | 3.2                     |
| Injest toxic substance             | 45                       | 3.3                     | Basketball                         | 3                        | 1.9                     |
| Twist, turn, slip (no fall)        | 42                       | 3.1                     | Excessive Heat                     | 3                        | 1.9                     |
| Motorcycle                         | 40                       | 3.0                     | Fall/jump-stairs or ladder         | 3                        | 1.9                     |
| Bullets/projectile                 | 38                       | 2.8                     | Falling/projected obj/missile      | 3                        | 1.9                     |
| Other sports                       | 36                       | 2.7                     | Fighting                           | 3                        | 1.9                     |
| Parachute-Military aircraft        | 34                       | 2.5                     | Sting of venomous arthropod        | 3                        | 1.9                     |

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